OPEN WRITING: WIKIS, COMMONS-BASED PEER PRODUCTION,

AND THE COMPOSITION CLASSROOM

by

ROBERT E. CUMMINGS

(Under the Direction of CHRISTY DESMET)

ABSTRACT

This dissertation seeks to identify and explain value of the recently-identified phenomenon known as Commons-Based Peer Production (CBPP) for the teaching of writing. The two most common instances of CBPP are the open source software operating system Linux, and the online encyclopedia Wikipedia. Law professor and economic theorist Yochai Benkler has identified CBPP as a third mode of economic production, supplementing the existing theories of market production and firm production. CBPP is an internet age phenomenon that arises only when traditional costs of production, including costs of fixation and transmission, or writing and publication, are made very low. This allows almost everyone to contribute as much or as little to a project that one self-selects, maximizing individual creativity. This dissertation attempts to apply CBPP theory to the writing classroom. It finds that the composition classroom is currently based on the firm model of production, where the writing instructor plays the role of the firm manager, assessing student writing based on how the instructor imagines a professional audience would respond to that work. The dissertation then suggests that the current composition pedagogy should expand to include CBPP, since a diverse audience can read and assess student writing rather than an instructor acting on behalf of an imagined audience. Further, this

dissertation examines the underlying economic and composition theory necessary to construct such a teaching model. To better explain CBPP, this document also traces the history of open source software development, emphasizing aspects which apply to the teaching of writing. This document also contains the results of a semester-long research project in which CBPP principles were applied in a First-Year Composition classroom, soliciting student feedback on the experience of writing in Wikipedia.

INDEX WORDS: Commons-Based Peer Production, Wikipedia, Linux, open source software, collaborative writing, wikis, composition, transactional economic theory, transactional rhetoric, epistemology

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DEDICATION

This dissertation is dedicated completely to my wife, Beth Spencer Cummings.

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I must first acknowledge Beth Spencer Cummings, my wife. Every word of this dissertation represents an act of love and a sacrifice on her part -- a changed diaper, an unwritten poem, a missed meeting, or an un-graded essay. There is no end to the sacrifice that my spouse has given for this document. Even as I write these lines, she is driving our family to our first vacation, waiting for me to finish and join them at the beach. They have all lovingly waited for too long.

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This work is a product of all of my earlier work, especially all that I was taught by Dr. Jay Watson at Ole Miss; a thesis for you was a dissertation for anyone else, and that thesis prepared me for this day. Thanks also to Dr. Patsy Hammontree, whose teaching saw me through some rather shaky and intermittent commitment as an undergraduate.

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INTRODUCTION

The “WICKIPEDIA” Epidemic: Signs of a Problem in Composition Studies

Heard on an English department e-mail listserv:

Composition Instructor 1:

> Is anyone else out there suffering from the WICKIPEDIA epidemic? Over half of my students in 1102M seem to have cited this highly unreliable source on their most recent paper. [. . .] Am I (*sic*) staid stick-in-the-mud for being horrified by students' use of this source? Actually, I'm fascinated by it as a pop culture phenomenon, but I'm horrified by the all-too-democratic "best source for information" concept. (McCoy)

Composition Instructor 2:

> While I'm not yet suffering from Wikipedia, I am suffering [from] an over reliance on the Internet. I encourage my students to avoid it, since there is so much tripe published on the Internet as fact. [. . .] Use of suspect sources may result in a reduction in their grade, as I consider it part of the responsibility of [composition]instructors to teach them how to do proper research for any topic that may be assigned while in college. If they have to use electronic sources, please stick to [our library's subscription database gateway], and remember that not everything there is valid. So I guess I'm an old fuddy duddy myself. (Clark)

Composition Instructor 3:

> One thing I've done is schedule an electronic resource day with a reference librarian to get all of them up to speed on using the library's databases. [. . .] With all the resources of [our library's holdings database] just a password away, they have little excuse to use a Wikipedia. (Quick)

Teachers of writing at the college level are confused, as never before, about what they should be teaching their writers. Most of the confusion results from the impact of information technology, and more specifically, the Internet, on the lives of their students. These teachers get little support and guidance from their institutions and mentors on how to identify and respond to the changes of electronic communication – there is little consensus in the field of composition as to exactly what teachers of writing need to understand about emergent technologies in order to do their jobs. Both in popular culture and the media, new forms of electronic writing such as blogs and wikis have recently garnered a lot of attention, yet no one is sure exactly how to respond in the classroom to these new forms of writing. If the teachers in our listserv epigraph are any example, teachers of writing are still wrestling with issues of academic authority initiated by the advent of the World Wide Web nearly ten years ago.

While many teachers understand that a blog is often used as a type of online journal or diary, the wiki is increasingly well-known. The technical definition is, surprisingly, the simplest: A wiki is a web page users can modify. The earliest known wiki, the Wiki Wiki Way project, was envisioned essentially as a software development tool; it started on May 1, 1995, when a software programmer named Ward Cunningham posted a note to a developers' listserv (Cunningham). Cunningham had developed a database to collect the contributions of the listserv members. He had noticed that the content of the listserv tended to get buried, and therefore the

most recent post might be ignorant of posts that came before it. The wiki is a software piece that combines the contemporaneous focus of a listserv with the data storage capabilities of a database. It is a listserv with a memory. Knowing these details, however, does not capture the full dynamic of writing in a wiki; although the largest and most famous wiki, Wikipedia, attracted the attention of the teachers in the listserv epigraph, even experienced writing teachers will find that contemporary electronic writing environments present challenges to their conceptualization of the writing classroom.

These teachers do not need another book on hypertext or new media theory. What they do need is an overview of which particular aspects of the ever-evolving information technology field have the greatest potential to impact the lives of their students as writers. There can be little doubt that wikis are already a part of their students' writing experience. Writing teachers know they are training students to write in a landscape which, if the last decade serves as any indicator, will probably be radically transformed by as yet unforeseen aspects of electronic literacy. And, counter to what might be expected, such an overview need not be immediately obsolete due to the fluid details of technology: if guidance for composition teachers can stay focused on how emergent technology shapes writing practices and environments, rather than on the nuances of the technology itself, a great deal of information which can be summarized in some useful ways. This document proposes to do just that by identifying a larger, cultural shift in the way people work, known as Commons Based Peer Production. CBPP has only recently come to light through the projects of Open Source Software, as well as specific writing environments such as the wiki, and its most famous iteration, Wikipedia. Examining the ways in which CBPP affects writing environments and writers' motivations for composing will lead teachers of writing to the most concise and relevant key for translating rapid technological developments.

But it will take some work to make a useful connection between existing composition pedagogy and the future writing landscape of our students. Teachers of college writing should be confused, for the rhetorical foundation of their training, practices, research and basic instincts as teachers has fragmented. Aristotle's touchstone rhetorical triangle, indelibly positioning us into the roles of speaker, speech, and audience, is less and less the monolith we thought it five years ago. Even contemporary appraisals, which accommodate the anxieties of postmodernist thinking, have been further ruptured by the continual evolution of computer applications that would appear to be farthest removed from the teaching of writing in the college classroom.

This document will look at a recently-developed Internet writing phenomenon, the wiki, as a manifestation of Commons-Based Peer Production, and the challenges it poses for composition instruction. The wiki, like Internet chat, is virtually invisible to the majority of composition pedagogies. Our reluctance to identify, much less embrace, electronic writing developments lies in our training, our professional environments, and in our own experiences as writers. If composition training does not fully incorporate Internet writing environments such as wikis, then it will be difficult to spread awareness of the serious and sophisticated rhetorical acts that are performed there. For our professional environments to value the original research of electronic environments and continue thoughtful inquiry into the rhetoric of Internet writing, we must observe, investigate, and research its use among our students.

As teachers and scholars, we will not develop a useful understanding of CBPP solely through a more sophisticated understanding of the technology that drives these devices. Even though an increased awareness of these technologies enhances our ability to understand the rhetorical boundaries of electronic writing, our appreciation of these new formats is not pinned to our comprehension of the underlying computer code. Rather, answers will come by recognizing

that we, as teachers of writing, need to acknowledge the formats where our students write – we must acknowledge writing that matters to them, and recognize the principles of critical thinking where we find them. And in order to do this -- to retrain our vision – we first need to look at how our rhetorical training can both bind and blind us. And as the teachers in the listserv epigraph demonstrate, that particular novelty of Internet technology which most often confronts writing teachers is the wiki.

The wiki is problematic for teachers of writing because it further dissolves those roles of writer, text, and audience that have been so thoroughly fragmented already by decades of postmodern theory. Yet, for this very reason the wiki also is an exciting tool for student writers, for it is through the dissolution of rigidly defined roles of writer, text, and reader that students are becoming energized about writing. The immediacy of Internet chat allows participants to cycle through the roles of writer and reader, thereby accounting for some of that medium's popularity with student writers. Students who write in wikis cite some of these same reasons for an intense involvement with their text: they know that what they submit in a group collaboration document will be quickly – if not immediately – assessed and edited by other readers. At the same time writers that are excited by the immediate feedback of readers are also challenged by another switch – that from the role of reader to writer – when the reader takes control of the text. This event – the crossing of role boundaries between reader and author – is such a fundamental aspect of the wiki writing environment that it becomes its dominant characteristic. In other words, wikis create an electronic group writing environment that permits collaboration on an entirely new level. Not only does this environment challenge the Aristotelian notion of the sole author, but it also challenges it with the massive network capabilities of the World Wide Web, with the potential of incorporating writers from across the globe.

Therefore, we have three aspects which, as this document will show, help to account for composition pedagogy's failure to recognize fully and engage the wiki as a relevant writing environment. An initial consideration is the fact that the wiki could still be labeled as an emergent electronic technology, even though it was first developed in 1996 (Cunningham), and the academy has a history of lagging behind its students in adopting emergent electronic technologies (Jones). Additionally, the wiki challenges the sole-author paradigm, which creates resistance to its engagement on at least two more fronts. First, there is a gap in composition and Rhetoric theory to explain wikis; even though there is a significant and growing body of electronic rhetoric, it has yet to address how the wiki specifically and practically challenges composition pedagogy. While postmodern authors are adept at recognizing the fragmentation of the traditional classification of writer, text, and reader, there is room for additional pragmatic thought on how theories of postmodern or electronic rhetoric can inform the teaching of writing. As we will see, the wiki is actually an example of a larger phenomenon – Commons-Based Peer Production -- and CBPP presents a challenge to the stability of the rhetorical categories of author, text, and reader. Secondly, there is a gap in composition literature to explain wikis because they are clearly an example of collaborative learning, but offer a new scale of collaboration not anticipated by much of contemporary composition theory. In the past, collaborative learning has entailed writing small groups – two to six individuals – through a larger group, such as a class. Wikis increase that number easily to the thousands, and potentially to the millions.

CBPP was first introduced by Yochai Benkler in his article "Coase's Penguin, or Linux and the Nature of the Firm." Benkler's title combines a double reference: Ronald Coase is the father of firm theory in modern economic thought, and the penguin is a reference to the official

mascot of Linux, the most popular open source operating system. Though Benkler is a law professor and his article was published in *The Yale Law Journal*, his analysis of human behavior within the phenomenon of Open Source Software is essentially grounded in economic theory. Benkler extends the work of Ronald Coase, who offered a system for defining economic behaviors of individuals, which can be very roughly summarized thusly: individuals will either work on their own or for someone else.

When we work on our own, we engage in what Coase calls the Market model of production.

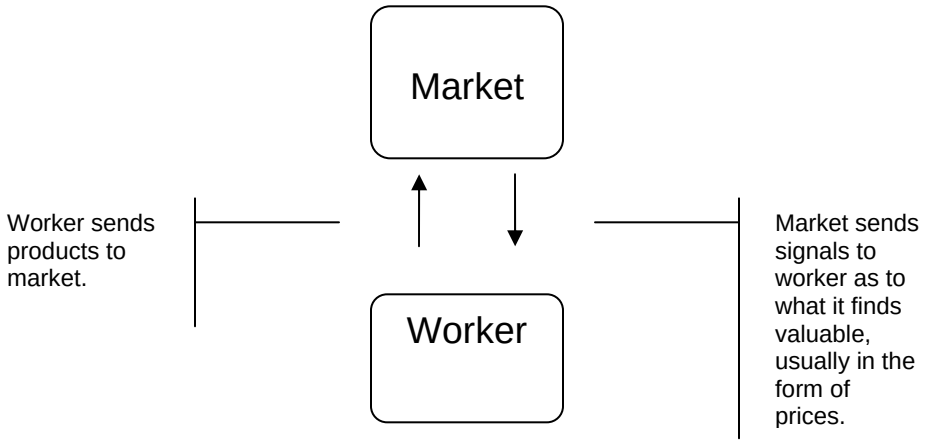

Figure 0.1: Coase's Market Model of Production

Within the market model of production, individuals engage the market autonomously. Here the individual must independently determine what he or she can do to produce a product for the marketplace. The individual is responsible for interpreting the signals provided by the marketplace as to what it finds valuable, assessing all of his or her talents, capital, and collaborative potential, and then delivering a product to the market that is most advantageous for

the individual. The signals sent to individuals as to what the market finds valuable are usually in the form of prices; and prices, though intermittent and variable, are final in their determination of the worth that a market places on potential products.

The alternative, according to Benkler, is the firm model of production, as shown below in Figure 0.2.

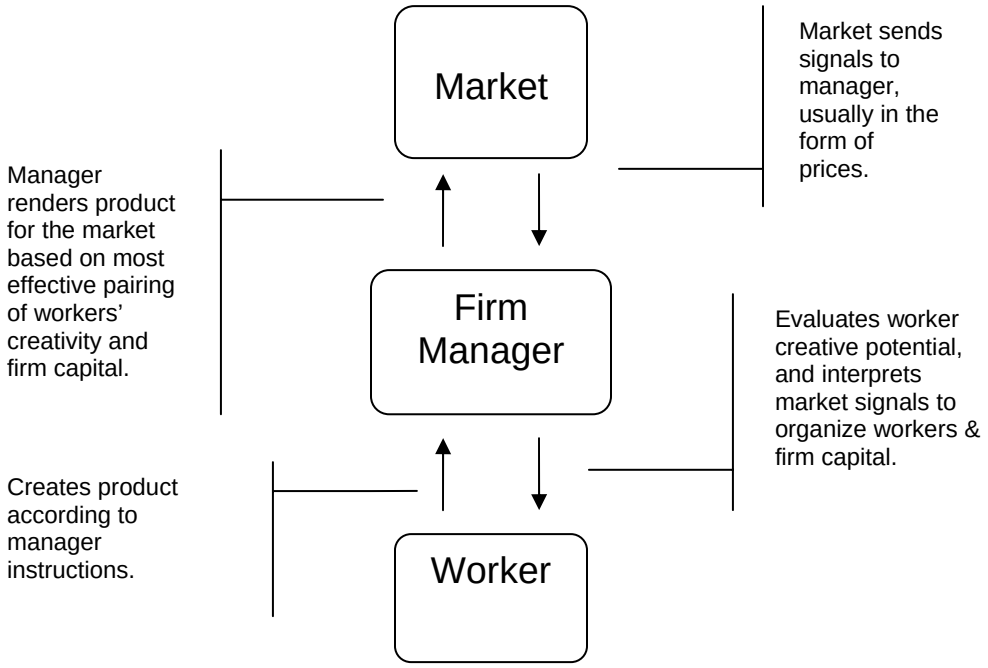

Figure 0.2: Coase's Firm Model of Production

In the firm model of production, the individual reports not to the marketplace, but to some form of management. The firm management inserts itself as a layer between the worker and the market, assuming many of the responsibilities assumed by the individual in the market model: the manager interprets price signals to determine which, of all the possible production combinations, the firm could pursue, the market would find valuable. The manager also assesses the talents of workers to determine which products are within their capabilities, and the manager

assesses resources (capital and information) for production. Additionally the manager evaluates possible worker/resource combinations to find the most effective production route. On the other hand, the worker surrenders the power of these choices to management in exchange for reduced risk. The worker no longer is allowed to decide what type of project is most suitable to his or her own talents. In return, management assumes the risks of interpreting market signals and delivering a worthwhile product to the marketplace.

Commons-Based Peer Production, as defined by Benkler, represents an entirely new mode of economic production, distinguishing itself from both the market model of production and the firm model of production, while retaining some aspects of both.

Figure 0.3: Commons-Based Peer Production

CBPP is a recent phenomenon because it is a product of a pervasively networked environment, or, in other words, the Internet. The rise of CBPP is strictly an information-age event, as it is predicated on a marketplace model in a society where information is the key commodity. When the dominant economic factors are determined by the costs associated with a traditional manufacturing economy, CBPP will not arise. According to Benkler, CBPP shines as a production model when four factors of an information age economy come into consideration. First, costs of fixation, or the costs to "fix ideas and human utterances in a media capable of storing and communicating them," must be low (377). Additionally, the costs of transmitting ideas must be low. The third factor required for the emergence of effective CBPP is public information: CBPP only works well when all parties have access to the same information. If one party has proprietary or secret information or can otherwise act on information withheld from other participants, then the economics of CBPP fail. If these three factors are met, then the sole remaining scarce resource in production becomes human creativity. And CBPP is founded on the most efficient use of human creativity.

CBPP models of production are marked by the following characteristics:

- The work is modular. Work must be divisible into components that can be produced independently of each other, in any sequence. In this way people can work whenever it is most convenient for them, with whichever talents they have to offer, and with whomever they choose.

- The work is sufficiently granular. The size of the module must be small. If it is, people can work as much or as little as it interests them. This frees people to work without pay.

- The work has low cost integration. The project must be able to edit out weak or insufficient contributions. This must be done efficiently, at a low enough cost for the whole project such that the work does not fall to a small number of individuals.

One key similarity in all of these characteristics is that this model puts more choice and autonomy in the hands of individuals.

In CBPP workers do not follow the price signals of a marketplace or the directions of a firm manager to determine their behaviors. Instead, workers act more as autonomous agents, or contributors, and select CBPP projects in which to participate based on their own internal motivations. Benkler writes that:

> Collaborative production systems pose an information problem. The question that individual agents in such a system need to solve in order to be productive is what they should do. Markets solve this problem by attaching price signals to alternative courses of action. Firms solve this problem by assigning different signals from different agents different weights. To wit, what a manager says matters. [. . .] Peer production provides a framework within which individuals who have the best information available about their own fit for a task can self-identify for the task. This provides an information gain over firms and markets, but only if the system develops some mechanism to filter out mistaken judgments that agents make about themselves. This is why practically all successful peer production systems have a robust mechanism for peer review or statistical weeding out of contributions from agents who misjudge themselves. (375)

Though there is much more to say about CBPP, let us take a moment to consider how these economic models – Coase's individual, Coase's firm, and Benkler's CBPP – provide insight on the traditional model of teaching writing.

Within the academy, and especially within departments of English, we primarily value the “market” model of writing in our teaching. All of our traditional judgments about student writing, the traditional structure of our classes, and the end goal for our education of student writers, have sought to develop writers’ skills to the point of being able to engage an audience on their own, or, in Coase's terms, react with the market as an individual. This conception of the mature writer as being an individual sufficiently creative and properly trained to offer text with original insight for the professional audience is deeply imbricated with other romantic notions, but for the moment it will suffice to acknowledge that the writing teacher trains student writers with this goal of professional competence and autonomy in mind. The goal of college composition is to produce autonomous writers who engage the “real world” with proficient, readable, text that embodies a modicum of critical thinking.

We can then offer an alternative model for independent, professional, college graduates as writers by loosely importing Coase’s economic market model. The key difference lies in substituting “market” with “audience.” Like the economic model, which portrays the market as sending the worker intermittent but important signals as to which products it finds valuable, so too does the audience send the writer intermittent signals as to what it finds valuable in the text the writer creates.

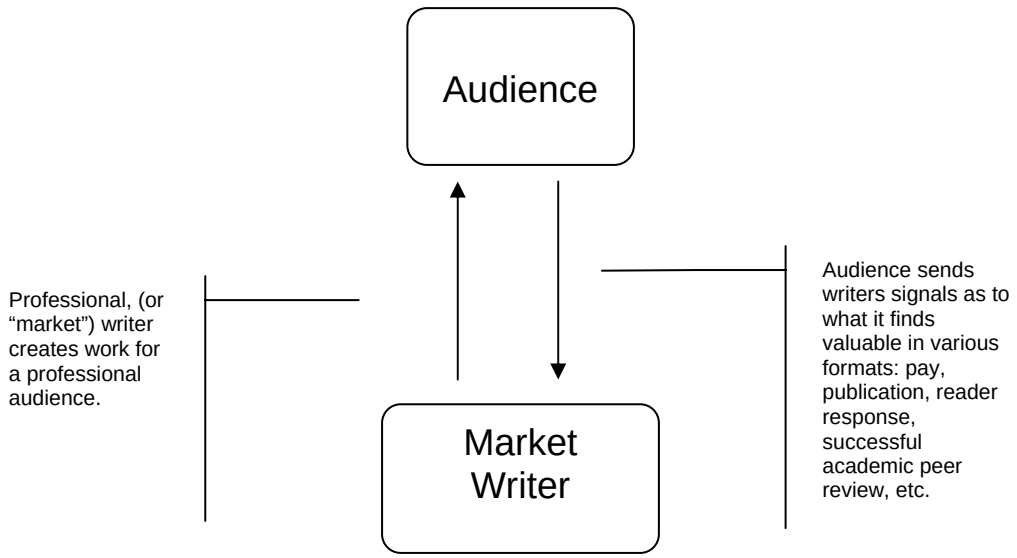

Figure 0.4: Market Writing

Regardless of the particular field a writer engages, he or she must make meaning for an audience, and that audience will send signals as to what writing it values. In the academic setting, scholars send writing for consideration to professional journals or book editors, and those individuals send return signals in the form of publication or rejection. Though the particular mechanisms for this communication may vary by field, the underlying mechanisms for acceptance or rejection are an essential, consistent, and defining feature of professional writing. But how does this model affect the way in which we teach writing at the college level?

At the college level, the composition teacher claims the role of successful market writer. He or she brings presents qualifications for teaching based on a track record of acceptable scholarly research in the form of publication, or, in Coase's terms, success in engaging the market independently. And, by presenting this essential credential, the composition teacher then trains his or her students to do the same. It is the composition teacher who both models Coase's market writer (he or she successfully engages the market / "real world" professional audience by building a track record of acceptable publications) and plays the role of firm manager (sending the signals to the student writer on how to spend his or her time writing most productively until

that writer is ready to take those signals from the marketplace / “real world” professional audience directly).

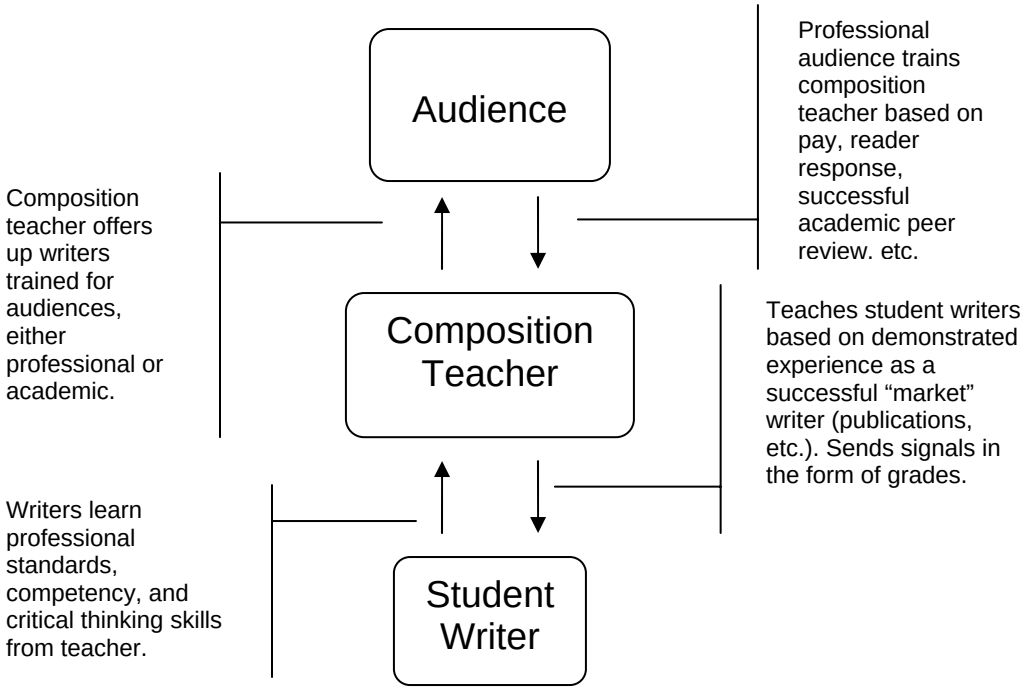

Figure 0.5: Firm Model of the Composition Classroom

In this Firm model of the writing classroom, the composition teacher plays the role of firm manager, interpreting the signals of a professional audience for student writers rather than the signals of a market for workers. Student writers do not compose for a professional audience; rather, they compose for a composition teacher who acts as a proxy for that professional audience, reflecting the attitudes and opinions of such an audience in the attempt to prepare writers to meet the same. (As will be explored more Chapter 4, it is exactly this very act of standing in for the professional audience that leads to much confusion and angst, as students invariably envision themselves as writing for the teacher, rather than some external audience, regardless of how thoroughly that writing teacher articulates another relationship.) If Coase's individual-to-market and firm-to-market models roughly parallel the institutionalized

development of writers in the college composition format, then we can investigate how importing CBPP would affect traditional models of college composition.

CBPP production differs from the market writer model and the Firm-Composition Classroom model organization in several key aspects, but the unifying theme is that the CBPP model puts more control and responsibility into the hands of students. Students take an active role in selecting topics and projects they feel they can work on, assessing their own writing talents, experience, and topical interests. CBPP asks writers to select their own topics based on what the project or market finds valuable, rather than allowing a writing teacher to select the writing topic. Integrating CBPP into the composition classroom, especially through the use of wikis, re-situates the ancient rhetorical canon of invention, placing much greater power and responsibility in the hands of the student writer. As we will see in Chapter 4, student writers in CBPP classrooms complain about many of the same problems that challenge professional writers – locating relevant and interesting projects that need their talents, rapidly developing expertise, negotiating feedback, and delivering only the most valuable information to readers. The tasks demand greater skill, training, confidence, flexibility, and support than does the traditional classroom.

CBPP also sets a new standard for peer review. Without effective peer review, the CBPP model ceases to exist. Thus, this new classroom model requires that students engage in active peer review to decide which contributions are valuable to the overall writing enterprise and to justify tough edits. CBPP writing has several benefits, not the least of which is moving students closer to engaging an ultimate audience directly rather than working through the composition teacher as a proxy for some unspecified audience. Additionally, if students engage in successful peer review of others' contributions to the CBPP project, they must internalize for themselves

the principles of effective composition. This internalization is brought to the foreground when student writers must defend their CBPP edits in terms of composition principles. And last, the CBPP writing model facilitates greater student enthusiasm for composition projects as students must self-select their CBPP writing projects. The act of self-selection can reasonably be understood as establishing more sustained student interaction with writing projects, since students are more likely to connect with topics on several levels when they write on topics of their own choosing.

Perhaps least understood, and least examined, is the shift in ethos that will accompany incorporation of CBPP into the traditional composition classroom. Ultimately CBPP emphasizes the individual; by placing so many of the production decisions into the hands of individual students, CBPP fosters greater maturity and self-awareness. By breaking with a more hierarchical structure and replacing it with a networked structure, CBPP also better prepares students for the writing world they will engage after college. This unique structure allows CBPP to achieve a balance between individual and collaborative work. Educators who remain skeptical about collaborative learning have often decried the loss of the individual within team writing assignments; CBPP's emphasis on individual invention and collaborative peer review position a creative tension for these two extremes. Finally, introducing CBPP into the composition classroom is a triumph for the identity of the individual and individual creativity. Economists praise CBPP systems for their ability to harness efficiently human creativity across a massively distributed network. This same emphasis on creativity, which is essential to the writing process, speaks of gains and human fulfillment beyond the lexicon of economics.

But it is within the domain of economics where we must begin the search for a theory to adequately understand CBPP. By situating CBPP as a mode of economic production in addition

to markets and firms, Benkler gestures toward a field of study that requires more investigation. Thus, the following four chapters will further examine the connection between economic theory, rhetorical theory, open source software development, and the teaching of writing. The first chapter looks more thoroughly into the theory, history, and development of the idea of the market, positioning it within the larger developments of capitalism, as well as holding it up as a parallel to the development of rhetorical theory. Chapter one is necessarily followed by an investigation of the economic theory of the firm and how its development also informs the teaching of composition. The second chapter examines the history of open source software development and traces within that history both the origins of the CBPP classroom and the essential elements of literacy within electronic discourse. Chapter three of this dissertation looks at how rhetoric and composition theory sets the stage for CBPP, and how to best apply CBPP in the writing classroom. The last chapter is a formal case study of CBPP in the first-year college classroom, complete with student reactions and data from interviews. But, as Benkler has suggested, understanding CBPP begins with economics.

CHAPTER ONE

COMMONS-BASED PEER PRODUCTION:

THE ECONOMICS OF THE MARKET AND FIRM

What happens is that the more powerful the vision of some increasingly total system or logic – the Foucault of the prisons book is the obvious example – the more powerless the reader comes to feel. Insofar as the theorist wins, therefore, by constructing an increasingly closed and terrifying machine, to that very degree he loses, since the critical capacity of his work is thereby paralyzed, and the impulses of negation and revolt, not to speak of those of social transformation, are increasingly perceived as vain and trivial in the face of the model itself.
– Fredric Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism*.

The previous chapter began by highlighting how composition teachers in higher education are struggling with the developments of online writing, specifically with Wikipedia. Since Wikipedia is a completely open website that any user can edit,[1] then the traditional methods of assessing and analyzing sources which these instructors relayed to students in their classes are under assault: the collaborative nature of the wiki erases the traditional idea of an identifiable author, upon which traditional systems of textual evaluation and reputation are based. The third teacher whose comments were reproduced in the introduction, Sharon McCoy, stated the predicament best when she acknowledged the potential of Wikipedia as an informative source, but viewed it as at odds with the principles of the sound writing practices upon which she founded her pedagogy.

[1] Wikpedia has amended its policies so that all "registered" users can make alterations. Since registration is free, and requires only an e-mail address, the editing process remains open for almost all purposes.

To understand this problem better, the introduction to this dissertation identifies Wikipedia as one instance of a much larger phenomenon, Commons-Based Peer Production (CBPP). And to better explain CBPP, we relied on the work of Law Professor Yochai Benkler, particularly his article "Coase's Penguin, or Linux and the Nature of the Firm."[2] Benkler sees CBPP as an economic phenomenon. Specifically, Benkler finds CBPP to be a new mode of economic production, which appends firm theory as originally posited by Ronald Coase. Economic theory provides for a market model and a firm model of production. In the market model, individuals produce goods for the marketplace, and the marketplace sends signals – in the form of prices – to the individual, informing the individual about which of his/her possible endeavors the market finds potentially valuable. In the firm model of production, individuals work in groups under the supervision of a manager. That manager assumes the job of interpreting market signals and determining the most useful course of action for workers. Although we did not discuss it in the first chapter, Coase's most noted insight within the framework of firm theory was the existence of transaction costs for individuals. When individuals found that the transaction costs for working in a firm exceeded what they would pay if working for the market alone, Coase theorizes that they would leave a firm to produce goods for the market directly.

Benkler then offers CBPP as an Internet age revision of firm theory. Benkler defines three key conditions that must exist before CBPP can emerge: (1) the cost of fixation (or, for our purposes, the actual cost of writing ideas in an electronic format) must be low; (2) the costs of sharing or publishing those ideas must be low; and (3) all information must be public. If these conditions exist, Bankler maintains that the sole remaining scarce resource will be human creativity. And CBPP emerges because it is an efficient system for maximizing human creativity.

[2] Benkler's title reference to a "Penguin," invokes Tux, the Linux mascot; Linus is the most successful example of open source software and the most notable application of CBPP principles.

In CBPP, there is no manager; rather individuals contribute to a group project on their own accord, and Benkler offers that the chief advantage of CBPP is shifting decisions about creativity to the individual, rather than a manager (as in the firm model of production), and without anticipation of the market's demands (market model of production). Benkler notes that in CBPP work must be modular (it must be non-sequential) and granular (individuals must be able to contribute as much or as little as they desire). Most importantly, Benkler notes that CBPP systems must achieve low-cost integration: the job of assessing the relevance and value of contributions must, like the central work of the project itself, be distributed amongst contributors. If integration is concentrated among a few individuals, then the system is not truly CBPP. In the composition classroom, instructors model the market writer, or someone who possesses enough writing acumen to communicate effectively in a professional environment. Instructors train students in a classroom, by contrast, according to the economic model of the firm; instructors play the role of the firm manager, coaching students up to the level of a market writer by standing in for that market, or ultimate audience, and judging student writing according to how they feel the market would judge it.

Can we import the CBPP model into the composition classroom? The challenge becomes integrating the principles of CBPP into the classroom to further the goals of good writing instruction. In order to fully critique the proposition of importing CBPP to the composition classroom, we will need to give serious consideration to the underlying economic theory Benkler employs for explaining CBPP. The purpose of this chapter is to do just that: fully explore only the most relevant economic theory needed for understanding the proposed incorporation of CBPP into the composition classroom and outline the history and development of CBPP. This will require not only an understanding of Ronald Coase's theory, but also an understanding of

the economic theory of the firm more generally, as well as an understanding of some principles of microeconomics.

Economic Hesitations

Before going further, however, it is worthwhile to identify from the outset some of the chief concerns readers might have for consulting economic theory to develop a more effective composition pedagogy. Even readers who might be willing to concede the aptness of economic theory for explaining the development of Internet writing systems such as Wikipedia can, and perhaps should, harbor concerns over the introduction of economic theory to explain systems for teaching writing. Primarily, composition is a pursuit located firmly in the humanities, and while economics is a discipline usually found in the business school, the fact remains that there are fundamentally different assumptions separating the two disciplines. Composition focuses on developing sound rhetorical principles to better define and promote good writing practices – a largely qualitative endeavor – while economics seeks to measure, understand, and predict human behaviors in response to material situations – a largely quantitative proposition. Juxtaposing these fundamentally distinct world views would seem to challenge the values of many composition and economic instructors; rather than provide a convincing model for revising composition strategies, importation of economic theory might well cost more in controversy than it offers in terms of solutions.

Consider a touchstone definition of economics offered by the early twentieth-century authority Lionel Robbins, who was known both for the breadth of his economic thinking and his opposition to Keynesian economics. Robbins offered that "economics is the science which studies human behavior as a relationship between ends and scare means that have alternative

uses" (Robbins). As such, this definition offers a fruitful beginning point for recording objections for leaning on economics to clarify the structure and challenges of the electronic writing environment. First Robbins offers economics as a science. While some in the sciences might object to the inclusion of economics into their field of inquiry, it does clearly mean that economics insists on developing models to predict human behaviors and finding objectively verifiable measures to test those models. This insistence on quantification might well run counter to fundamental assumptions of contemporary composition pedagogy, which long ago diversified its pedagogical theory and practices beyond the claims of a single, central, objective and verifiable truth that had become associated with current-traditional rhetoric. More simply put: writing is constructed as an inherently qualitative, not quantitative, pursuit. Additionally, economic theory as a tool for understanding composition pedagogy necessarily shifts the theoretical perspective towards material production, if not fully awakening the specters of materialism and Marxist literary theory. Fundamental economic concepts such as supply and demand emphasize aggregated human responses to material needs rather than the concerns of artful expression. Economics must, by its own self-definition, emphasize the measured over the immeasurable.

There must also be great reluctance to look to economic theory as a basis for understanding humanistic pursuits in higher education, given the contemporary business-think climate of college administration, as documented in works such as Eric Gould's *The University in a Corporate Culture*. From the 1990's onward, there has been an increasing tendency for higher education administration to employ a business rationale for classroom decision making, which has seemed to many as the further abrogation of ethical responsibility to the invisible hand of the marketplace in yet another arena of public policy. Economics is a field that recently has moved

to complicate some of its most basic assumptions -- namely that all individuals can be assumed to act out of a simple desire to improve their material situation – by adapting the advances of evolutionary biology and psychology (cf. Richard Dawkins's *The Selfish Gene* and Robert Frank's *Passions Within Reason*). Teaching to the baseline assumption that all students can, and must, act only toward fulfillment of their material best interests would run counter to the purpose of liberal arts values and the fundamental assumptions of human development. Additionally, the economic model often summarizes the reality of complex human motivations by attempting to reduce them to one simple drive for material gain. Even if the economic model of human behavior is not counter to the ethics and aims of good teaching, to assume that students are motivated by nothing more than a consumer's desire for material gratification would obviate the more complex and ethically-developed relationship which sound pedagogy assumes, as well as naively reduce the cognitive reality of the learning process. Thus, we must be ready to interrogate the importation of economic theory into the writing classroom on the basis of its ethics, its oversimplification of the human condition, as well as its reconstitution of the student-teaching relationship into a consumer-producer model.

None of these objections, however, would seem to slow the recent advance of economic theory into areas previously regarded as out of bounds, illustrated most recently by Bjørn Lomborg's *The Skeptical Environmentalist* and Levitt and Dubner's *Freakonomics*. To many contemporary observers, it would seem that the academy has already replaced much of the liberal arts culture that traditionally has hosted composition with a backdrop of business-speak and quantitative modeling. But the proper attitude to strike toward the importation of economic thought into the composition classroom ought to be held by the veracity of the model proposed. That is to say, if the model of electronic writing for the composition classroom is to be

influenced by economic theory, then that theory should be judged by testing the outcomes predicted by the model. If CBPP can improve composition pedagogy, then we should challenge it to yield specific claims about improving student writing, which can then be tested. This document will do just that, and it invites its readers to table any dis-ease about relying on quantitative assumptions of the economic disciplines until these specific claims for the benefit of composition pedagogy can be stated and tested. Thus, this chapter will continue to examine necessary economic underpinnings and CBPP history with an understanding that the ultimate measure of their worth will be their ability to improve student writing and the pedagogy which trains that writing.

Economic Analysis and Electronic Writing

Writing, as a discipline, grows more quantitative as it becomes more electronic. Sun Microsystems's corporate slogan captures the idea well: "The computer is the network." That is, the concept of computing is no longer primarily concerned with the processing capacity of the machine on the desktop or in a lab. Since the advent of the Internet, computing for most of us means connecting in a network and then making sense of those connections. Networking consciousness permeates writing, indeed, as it is no longer practical to theorize writing without measuring the impact of the electronic environment. Networking consciousness has thus far been shaped as a download model, envisioning student writers as consuming information found on the Internet. The upload model, or web 2.0 concept, reverses the flow of information and transforms networking reality from consuming to contributing, a potential made most visible by Wikipedia. Writing will be created, stored, and shared digitally, which means that it has become an inherently quantifiable affair. Student writers, by contrast, write from varying positions of

awareness of these electronic dimensions and how they create an audience for their work, but the networked reality is nonetheless a permanent part of the writing landscape. Thus, contemporary composition itself bridges uneasily the gap between humanist pursuits and electronic realities, between the descriptive and the defined, and as such shares a concern with contemporary economics. Just as contemporary composition finds itself struggling to apply its own classical origins to a digital world, contemporary economics finds itself bending traditional quantitative concerns, such as supply and demand, to model infinitely more erratic human motivations and behaviors. The current and future concerns of both fields of knowledge are moving closer.

This unbounded nature of contemporary economics is marked by the field's official acceptance of work that once would have been considered either sloppy or simply non-academic. The best example of this phenomenon is the 2003 award of the John Bates Clark Medal, given by the American Economics Association every other year to the most promising economist under the age of forty. The 2003 award was given to Stephen J. Levitt at the University of Chicago. The choice is unconventional not only because of Levitt's stated dis-ease with the conventions of his discipline (he is quoted as saying 'I just don't know very much about the field of economics [. . .] I'm not very good at math, I don't know a lot about econometrics, and I also don't know how to do theory'), but also the fact that his focus is on matters considered beyond the traditional purview of economics (Levitt x). *New York Times* writer Stephen J. Dubner characterized Levitt's scope this way: "What interested Levitt were the stuff and riddles of everyday life. [. . .] As Levitt sees it, economics is a science with excellent tools for gaining answers, but a serious shortage of interesting questions" (xi). Levitt and Dubner thus collaborated on *Freakonomics*, a book that claims to map the analytical tools of economics onto completely new terrain – concerns beyond traditional production and consumption. For those of us who would seek to

better understand how CBPP will reshape the composition classroom, the project of Levitt and Dubner is not so interesting either in terms of its veracity or its novelty. Salient instead is Levitt and Dubner's grounding of their work in a convincing definition of economics to justify for their readers why this particular field offers compelling insights beyond the imaginary widgets of so many econ classroom chalkboards. To do so, they wisely invoke Adam Smith in his original role as a moral philosopher, or someone who studies what people ought to do, whose passion for accurate measurement of human behaviors led him instead to the inquiry of what humans actually do. They write:

> It is worth remembering that Adam Smith, the founder of classical economics, was first and foremost a philosopher. He strove to be a moralist and, in so doing, became an economist. When he published *The Theory of Moral Sentiments* in 1759, modern capitalism was just getting under way. Smith was entranced by the sweeping changes wrought by this new force, but it wasn't only the numbers that interested him. It was the human effect, the fact that economic forces were vastly changing the way a person thought and behaved in a given situation. (14-5)

For the purposes of this investigation, it is worth considering that we live in a similar time of behavioral revolution, where electronic networked writing is changing the way writers think and act. Just as Smith's pursuit of grasping and explaining new human behaviors led him across disciplinary boundaries in the eighteenth-century, so too does the attempt to understand the effect of wikis on writing necessitate a willingness to borrow tools from other disciplines to solve writing problems. Levitt and Dubner seem to anticipate this very dynamic when they write that

> economics is above all a science of measurement. It comprises an extraordinarily powerful and flexible set of tools that can reliably assess a thicket of information

> to determine the effect of any one factor, or even the whole effect. [. . .] Since the science of economics is primarily a set of tools, as opposed to a subject matter, then no subject, however offbeat, need be beyond its reach. (12-3)

Robbins, whose definition of economics was introduced above, offered that definition in 1923, and as Levitt's success in remapping economics would indicate, the field has greatly diversified, and should no longer be understood as a monolithic enterprise. Managerial economics has emerged as one particular subfield that attempts to understand human behaviors and motivations outside the traditional problem set of classical economics. To be sure, managerial economics is concerned with business problems and business outcomes. But it positions itself on the border of human behavior and economic results, attempting to create principles for more effective management. While it retains many of the traditional aims and tools of traditional economics, managerial economics has also sought to apply the modeling and hypotheses developments of economic theory to the practical situations faced by business managers, who often encounter concerns that are not easily quantified. Managerial economics offers particularly valuable insights for the project of applying Benkler's CBPP theory to the writing classroom as it also is founded on firm theory, or the economic theory of understanding and predicting human behavior for which Ronald Coase's work is noted. Thus if we are to find a branch of economic inquiry which will help the project of applying economic thought to evaluate the composition classroom, managerial economics will provide that toolbox.

Nick Wilkinson, author of the textbook *Managerial Economics: A Problem Solving Approach,* offers a definition for managerial economics that evokes Robbins's sense of economics as "choosing between scarce means that have alternative resources." but also a definite broadening of scope, and alludes to some of the possible readerly discomfort expressed

about the creep of economics from widgets to wikis:

> [Managerial economics is] the application of economic theory and methods to business decision making. [. . .] The term 'business' must be defined very broadly in this context: it applies to any situation where there is a transaction between two or more parties. Of course, this widens the scope of the concept beyond the bounds that many people find comfortable: it includes taking someone on a date, playing a game with one's children in a park, going to confession in a church, asking a friend to help out at work, agreeing to look after a colleague's cat while they [*sic*] are away, taking part in a neighbourhood watch scheme. In all cases, costs and benefits occur, however intangible, and a decision must be made between different courses of action. (8-9)

Surely, all writers are familiar with the terms of choosing between modes of expression to locate the best connection with an audience (what could better define rhetoric?), even if that audience connection is not the sole purpose of composition. The similarity here between communication and commerce lies within the rhetorical author's examination of all available expressions to make that strongest expression of an idea, just as within the material world an economic agent must consider all possible means of production before choosing a course of action. If electronic writing in the composition classroom can be viewed within the framework of a transaction, then the idea of employing economics to frame it becomes less of a controversial choice. And surely the rhetorical triangle prepares us to envision writing within the broader context of Wilkinson's managerial economic transaction: the writer, in preparing texts, considers the relative costs and benefits of particular textual choices – or their reception -- before transmitting it to the reader. As Walter Ong has demonstrated in multiple essays on the topic, including "The Writer's Audience

is Always a Fiction," the writer must actively conjure the image of the audience. And just as surely as the writer conjures the image of the audience, that same writer must do something for the reader to earn and maintain his or her attention. Yes, the writer must *transact* with the reader, and never more so than when the reader can register his or her reaction to the text within the immediacy of the electronic environment.

The writer/audience relationship as transaction provides one organizational paradigm to guide us through the relevant economic theory. Benkler asserts that the CBPP structure thrives because it reduces transaction costs; no manager is required to peer into the soul of a worker to identify and assess the range of her/his possible creativity and production. Coase and Williamson identify transaction costs as the key for the emergence of a firm. And Wilkinson similarly identifies transaction costs as the first of six key economic factors that comprise of the economic theory of the firm. Thus, we will need to look at transaction cost theory in our economic review. To begin, however, we should also recall that in Benkler's declaration of CBPP as a third model of economic production, he was implicitly appending two additional models of economics operations: the market theory of economics and the firm theory of economics.

Market Theory of Economics

"Market" is defined by the *Oxford Dictionary of Economics* as simply "A place or institution in which buyers and sellers of a good or asset meet" (Black 288). More aptly, however, the definition expands to include "in many cases the market is a network of dealers linked physically by telephone and computer networks" (288). In contrast to defining the place, another economic dictionary focuses on the transactions that a market permits, defining them as "A collection of homogeneous transactions. A market is created whenever potential sellers of a

good or service are brought into contact with potential buyers and a means of exchange is available" (Bannock 242).

The economic theory of the market is roughly equivalent to the theory of the rhetorical situation. In terms of its history, theory, and practice, comparing the development of the market to the historical, theoretical, and practical development of the rhetorical situation will inform an understanding of each concept. In fact, as is becoming increasingly clear through works such as Thomas L. Friedman's *The World is Flat*, the broad topics of capitalism, technology, and writing are best understood as developing in relation to one another, rather than as separate entities. Capitalism serves as the trigger for technological development, and information technology acts as the tool that produces and defines text. While it is perhaps inviting to think of these connections in Marx's terms of base and superstructure, the importation of any particular theoretical school is not necessary to apprehend the basic historical outlines which allow the economic, technologic, and rhetorical connection.

In the abstract of "Coase's Penguin," Benkler summarizes efficiently the differences between market theory and firm theory by stating that "For decades our understanding of economic production has been that individuals order their productive activities in one of two ways: either as employees in firms, following the directions of managers, or as individuals in markets, following price signals" (Benkler). Later, he adds that "People use markets when the gains from doing so, net of transaction costs, exceed the gains from doing the same thing in a managed firm, net of organization costs" (372).

But Benkler's description of CBPP jumps over any serious investigation of market theory. This is understandable; relatively few economic theorists are willing to address the topic directly. As it turns out, the relative invisibility of the concept of the market, an idea absolutely

fundamental to any understanding of the workings of capitalism, is a measure of the saturation of capitalism throughout contemporary economic thought. Writing almost forty years ago, economic theorist John Hicks attempted a theoretical history of the concept of the market. In so doing, he addressed the problem of seeing the concept of the market as itself, and took as his starting point the concept that a "Rise of the Market" necessarily implies a pre-condition from which the market separates itself: "What was there before? [. . .] There was a stage in the development of economics [. . .] when economists were so wrapped up market economics they were unwilling to contemplate anything else – unwilling to grant that there was any other organization which could ever be a serious alternative" (9). Part of the reason why an economic historian would have difficulty finding theorists in his field who can even conceive of an economic condition prior to capitalism lies in the enveloping nature of capitalism itself: the dominant social paradigm does not necessarily invite questioning. On the other hand, the concept of the market is also inherently slippery, for it has two main components: the actual history of a cultural touchstone for buying and selling goods, the marketplace; and the theory of the influence of that marketplace in our culture, or market theory. When we discuss the concept of the market as a driving, fundamental aspect of capitalism, we are more accurately discussing market theory, or the concept of how a potential, theoretical, and un-realized marketplace directs actual, practical, material decisions. But this theoretical market stems from a real historical market, or a place where people gathered to buy, sell, and barter goods found in almost every culture in every historical period. That marketplace, as opposed to market theory, is further categorized by (1) location, and (2) type of goods transacted in the marketplace.

Market Grammar

First, let us examine the concept of the marketplace, or that ubiquitous cultural fixture wherein almost in all periods, people gathered to buy or sell goods. In a lengthy entry on Markets for *The Oxford Encyclopedia of Economic History*, Douglass C. North starts by noting that the type and nature of markets found in any given culture are an accurate statement of their moral, or religious, values: "Throughout history, people have held widely disparate views about the equity, efficiency, and morality of forms of exchange. [. . .] Religions usually have strong views about the morality of various markets, including usury and insurance, as well as the time and place of exchange, the use of a monetary unit, and broadly impersonal exchange. [. . .] A necessary condition for the development of markets was the evolution of beliefs justifying their equity, efficiency, and morality" (433). Once permitted, markets needed rules to ensure fair trade. And like all comprehensive systems, two sets of rules emerged: codified rules for equitable trade, as stated in written laws; and customary rules, as determined and practiced by cultural consensus. Both sets of rules need enforcement, which North sub-divides according to which party of a theoretical trade conducts the actual rule enforcement: "Enforcement may be carried out by the first party, through self-enforcement; the second party, through retaliation; or the third party, through ostracism by other interested parties or coercive enforcement by private groups or the state" (433). Implicit in North's concept of "parties" are the basic agents in the market: a seller, who meets a buyer, with a commodity for sale. Before proceeding to look further into the development of the marketplace over time, it is worth returning to the idea given at the outset of this chapter, that the development of the market is similar to the development of the rhetorical situation.

The marketplace shares the basic outline of the rhetorical situation. The rhetorical situation is typically attributed to Aristotle, and although the exact origins of this concept are unclear, the basic triad of "speaker/author, speech/text, and audience/reader" remains relatively constant in descriptions of the rhetorical triangle. An initial comparison between the economic concept of marketplace and the rhetorical situation reveals three corresponding analogies: the marketplace seller can be equated to the rhetorical speaker, the marketplace buyer can be equated to the rhetorical audience; while the marketplace commodity can be equated to the rhetorical speech act. We can consider these roles equivalent by comparing the sale to the speech act. Consider that the sale in the marketplace acts as a rough approval of the buyer for the seller's commodity. This positions the speaker as seller, and audience as buyer. In the rhetorical situation, the audience either approves or rejects the speaker's speech. Certainly, many authors will be all too familiar with the idea of the audience's approval or rejection of their text, but if we consider the sale of the commodity in the marketplace as an approximation of the audience's acceptance of speech, we can also consider the apparatus that frames both sets of production: speech and commodity. Specifically, for the marketplace to function both parties must agree on a framework of acceptable behaviors, and those behaviors must be expressed in terms of written rules and unwritten customs; likewise, in a successful rhetorical situation, the parties establish a framework of language rules, both formal and informal.

These rules of production for rhetoric are better known as grammar, or the mechanical rules by which language is assembled. And like the rules of the marketplace, these grammar rules are both of a set of formally codified rules, with enforcement left to outside parties, and a set of informally applied rules, or the slang customarily employed by participants in the marketplace. Enforcement of grammar is likewise similar to the enforcement of marketplace

trade rules. Formal rules of communication are developed over time by those vested with positions of authority, and they are recorded in written texts. Enforcement of these formal trade rules is likewise left to parties of authority beyond the point of sale and most often come into play only in written business documents, such as contracts between buyers and sellers or public advertisements, as well as legal documents used to resolve conflicts of interpretation. Contrasted with formal grammar is the actual communication style and custom employed in the marketplace on a day-to-day basis. These rules are not codified, but instead are enforced by social custom; buyers and sellers who employ a familiar and culturally endorsed ethos are more likely to find success in commercial business. Conversely, the marketplace participant who employs unfamiliar language and demonstrates a lack of awareness raises questions about his/her identity or ethos and therefore diverts the attention of the buyer or seller from the transaction at hand to the credibility of that participant. Thus, just as failing to apply the rules of grammar in a job application letter raise questions about the training, background, and expertise of the applicant, significant transgression can also trigger informal rule enforcement through the denial of employment for the author applicant.

In this comparison between the rhetorical situation and market theory, the key substitution is speech or text for commodity. In terms of economics, the transfer of the commodity is expressed and analyzed in transaction theory. In terms of rhetoric, the transfer of the speech or text is also expressed and analyzed in transaction theory (cf. the discussion of Berlin in Chapter 3). In economics, transaction theory focuses on the act between buyer and seller primarily to analyze costs of production, theorizing that either or both parties – buyer or seller – seeks an arrangement that reduces transaction costs, allows for optimal access to trading partners, and maximizes profits or value. In the rhetorical situation, the speaker seeks a situation that allows

for the most direct communication with the audience, both to maximize the comprehension of the utterance and to widen of the audience. Thus, in seeking the optimal rhetorical situation, the speaker necessarily is looking for the lowest transaction costs – the ability to find the largest audience possible, that can comprehend the speech with as little distortion and as much acceptance as possible. This correspondence – the comparison of economic theory's transaction costs to the rhetorical speaker's desire to be accurately heard – is singularly the most salient result in comparing the two theories. Economic theory has focused upon transaction theory to understand complex human behaviors in the arena of commerce. Comparing economic transaction theory to rhetorical transaction theory invites a similar focus, perhaps with an increase in clarity from a new perspective. But transaction cost theory is the most important economic concept for interpreting the principles of CBPP in the composition classroom, as transaction cost savings are at the heart of Benkler's claims for greater communication, productivity, and creative expression.

Equating economic transaction theory with rhetorical transaction theory also implies an equivalence between the sale, or acceptance of the commodity from the seller by the buyer, with persuasion, or acceptance of the message of the speaker by the audience. There are some problems with this approach, and it is necessary to qualify this analogy of economy and rhetoric. First, the key difference between the two models rests on how much power we are willing to assign the audience or buyer. In the rhetorical situation, the audience can sample the text, accepting all of it, none of it, or a portion of it. Listening or reading does not necessarily imply acceptance or approval. In contrast, the marketplace model assumes that the buyer accepts or rejects the commodity in its entirety; in this case audience approval is manifested through a material object. Yet while the marketplace model might entertain a separation between the

buyer's purchase of the commodity and the buyer's satisfaction with that same commodity, typically the market model collapses any such distinctions to the point of sale: economic analysis is usually preoccupied with the quantifiable reactions known as commerce, or commodities bought and sold, and less interested buyers' or sellers' reactions beyond that point.

This focus on the marketplace sale applies more readily to the rhetoric of speech than to the rhetoric of the written word. Economic transaction theory does not seek to address the mental states of either the buyer or the seller, before or after the sale. Instead it insists that the commodity represents a final reduction of all desires, or compromises of desires, by either party. This economic transaction is more like the utterance of speech than the text of the written word; the permanence of the written word invites a complexity of thought and reaction that can later be expanded upon. The marketplace model and transaction theory insists upon the commodity, at the location of the market and at the time of the market, as the ultimate expression of the desires of both buyers and sellers. This reduction of all desires into the measurable commodity, a fundamental premise of economic analysis, remains the greatest limitation to employing economically-inspired analysis in the realms of rhetoric.

Yet this focus upon the point of sale is the redeeming strength as well as critical weakness of economic thought. By limiting the scope of analysis to this one consistent point, a great deal of human behavior can be quantified – the laws of supply and demand are premised upon the point of sale and have provided a cornerstone for quantifying aggregate human desires since the introduction of modern economic thought. Yet, no economic theorist would presume that predicting or measuring the population's desire to purchase tires or shirts and planning productive behaviors based on those assumptions would yield a summative statement of the human condition, just as no rhetorical theorist would assume that the sum of the speaker's or

audience's intellect is captured by the relative measure of the persuasion in an utterance. Still, the reductive power and insight of economic thought hinges on this ability to equate a buyer's purchases with acceptance and approval. Critics of government by the invisible hand, or the surrendering of governmental power to the dictates of the marketplace, have fought the equation of commercial exchange with public will for as long as there have been market economies. At any given point in time critics of capitalism have decried the commodification of otherwise complex social issues in societies with market economies, yet the same critics must also concede that it is much easier to measure currency paid for a particular product and argue that it equates a buyer's sense of approval than argue that the relative silence of data on a given topic equates public will. When an economist records that the public paid $2 billion dollars in the last quarter for VOIP services, he or she can make a forceful claim that people generally prefer the new form of telephone services to the old telephone network.

Which brings us to the threshold of the converse problem for rhetorical studies: how can a speaker be certain that the audience has heard the speech? Or understood, agreed with, or been affected by that speech? Each major period of rhetorical theory has assigned audience reception a different weight. Without attempting to summarize the general trend here, it is worthwhile to consider exactly how these two transactional models, economic and rhetorical, intersect on this point. Certainly one of great strengths of the classical model of rhetoric is the assumption of immediacy, the idea that an audience, unlike the receiver of the written text, can hear and respond to the spoken word. And as J. David Bolter and other rhetoricians of the electronic era have theorized, the immediacy of the electronic network technology has reified awareness of audience reception to the author.

The purpose of exploring this comparison between economic models of transaction theory is to see how well they might serve as future models for rhetoric of the information age. The logic is that if transactional economics works to measure and predict productivity in the information age, then we should at least consider how transactional rhetoric can be a starting point for measuring and predicting productivity in the information age. But the potential dissonance from comparing between transactional economics, based on the reality of a marketplace, to transactional rhetoric, based in the reality of making meaning, raises some questions, including whether the marketplace model assigns too much influence to the role of the buyer to be considered an accurate substitution for textual creation. In other words, what does the marketplace model offer for situations where the speaker speaks without any consideration of an audience beyond his or her self? A situation where the author writes primarily for his or her own benefit, with no indication of preparing a text for acceptance by an audience, does have a rough equivalence in the marketplace model. In economic theory there are instances where sellers are not selling a commodity, but rather preparing an object for their own edification. Here the commodity is not created with the intention of sale in the marketplace, even if it has a later life as a commodity. It is important to note, however, that art and texts prepared only for the benefit of the creator often follow the same rules of communication; that is to say that even though the object is created not as a commodity for sale, it is often readable. Having outlined the basic correspondence between the market and the rhetorical situation, let us continue the analysis to the next stage of historical market development.

From Marketplace to Market System

In *Economics Explained*, Robert Heilbroner and Lester Thurow, two of the twentieth-century's most gifted translators of economic theory, offer a brief but profound history of the relationship between the historical marketplace and the larger market system, known better as capitalism. These two broadly define the market system as "one in which economic activities are left to men and women freely responding to the opportunities and discouragements of the marketplace, not to the established routines of tradition or the dictates of someone's command" (14). Accordingly, their history of capitalism holds that until the sixteenth-century developments in Europe allowed individuals to participate in the market system directly and for their own self-interests; marketplaces might have existed, but they were relatively unimportant. During the pre-capitalist period several factors restrained the development of the market system. All of the pre-capitalist societies, regardless of location and culture, lacked the institution of private property, had no centralized market system (even if they did have markets), did not esteem moneymaking, and economic life was stable (12-3). This last point is perhaps most important in explaining the pre-capitalist cultural framework:

> It may not have seemed so [stable] to the peasants and merchants whose lives were constantly disrupted by war, famine, merciless taxation, and brigandage. But it was very stable compared to the tenor of economic life in our own time. The basic rhythms and techniques of economic existence were steady and repetitive. Men and women sowed and reaped, potters and metal workers turned and hammered, weavers spun and wove – all using the same kinds of equipment for decades. (13)

All of this was to change with the discovery of the new world. Once gold from the new world

began flowing into Europe, prices for commodities rose as the currency was gradually cheapened – more money chased the same amount of goods. Feudal lords were bound by custom and contract to provide for serfs, and in return serfs provided labor, goods, rents, and services for their lords. But those rents were fixed, and the costs lords were expected to cover rose dramatically. In England this cycle of events began the period known as enclosure, where landowners exchanged human tenants for sheep, triggering an economic and cultural revolution. All of these changes were a preparation for the arrival of the market system (Heilbroner 13-17).

Under the market system, individuals could own property. Therefore, they could take the fruits of their labors into a (largely regulated) market for sale. Thus, moneymaking became more esteemed, as almost anyone could produce wealth through production, rather than acquire it from social standing. Old ties to nobility and custom were erased as day-to-day life became a great deal less certain for the average person. Perhaps most relevant to the change in our contemporary transition to an information economy, however, was the change in the nature of work brought about by the industrial revolution: prior to the industrial revolution, individuals were more likely to work on varied tasks and create a variety of goods and services to meet needs in their daily lives; after the arrival of mechanized production, however, what Marx calls commodification and Benkler calls modularization was born. Heilbroner and Thurow describe this great materialist tradeoff of the industrial revolution as follows. First, the good news:

> *Things* became more common – and commonplace. As late as the seventeenth century, what we would consider the most ordinary possessions were scarce. A peasant counted his worldly wealth in terms of a few utensils, a table, perhaps one complete change of clothes. In his will, Shakespeare left Anne Hathaway his "second-best bed." [But t]echnology brought a widening, deepening, ever-faster-

> flowing river of things. Shoes, coats, paper, window glass, chairs, buckles – objects of solicitous respect in pre-capitalist times for all but the privileged few – became everyday articles. Gradually capitalism gave rise to what we call a rising standard of living -- a steady, regular, systematic increase in the number, variety, and quality of material goods enjoyed by the great bulk of society. No such process had ever occurred before. (21)

But if capitalism had unleashed this river of things, that current swept away more than poverty. The change came with many unforeseen costs, not the least of which was the profoundly dehumanizing modularization of work. Heilbroner and Thurow note this change best in terms of the economic history of capitalism and market theory, but also highlight the role of technology in bringing about the changes of the Industrial Revolution:

> Technology also played a decisive role in changing the nature of that most basic of all human activities, work. It did so by breaking down the complicated tasks of productivity into much smaller subtasks, many of which could then be duplicated, or at least greatly assisted, by mechanical contrivances. [. . .] Work became more fragmented, monotonous, tedious, alienated. (22)

It is worth a moment of reflection to understand this comparison to capitalism and technology, and just what it portends for the importation of CBPP into the writing classroom.

Modularization and Commodification

Generally, this chapter attempts to explain the role and origin of CBPP by identifying it as an offshoot of two earlier modes of economic theory – market theory and firm theory. To understand better how those modes intersect with the teaching of writing, their origins, history,

and development are being compared to specific aspects of fundamental rhetorical theory, such as the rhetorical triangle and the rhetorical situation. This aspect of the history of capitalism – its division of labor – and its modularization of tasks, is especially apt as it prefigures one of the most difficult challenges for writing in the CBPP environment – integrating contributions – and places that challenge in the greater context of the overall trend of capitalism.

CBPP's insistence on modularization is not new. In fact, it is almost five centuries old, because it is merely the latest extension of capitalism (cf. Fredric Jameson and the discussion in Chapter 3). But often the most polarizing aspect of CBPP is specifically its use in writing: the objection arises that writing, especially original prose, resists modularization. In writing about open source projects, Steven Weber specifically mentions writing as one task, which, like the construction of a cathedral, but unlike the construction of software, cannot be accomplished by multiple authors, with content distributed over a network: "You can diagram the syntax of a poem or write an essay about an underlying theme. To represent it all at once – and to do so in a way that communicates effectively to an outside observer – is a problem of a different order of magnitude, perhaps insoluble. That is why great poetry is almost always the product of a single creative mind" (58). Thus, Weber joins others in insisting that writing is a unique art, somehow beyond the capabilities of collaboration. Thousands of programmers might be able to author a computer program, or an encyclopedia article, but this argument insists that quality writing demands a type of integrative oversight that simply resists a division of labor.

Economics is a field which has given a great deal of thought to division of labor. Traditionally, its analysis is algorithmic or algebraic, assuming that all tasks can be subdivided into smaller components for completion, and then reassembled. In practice, the complexity of reassembling subdivided work into a meaningful whole again is tragically underestimated. And

yet this breakdown and reassembly is a necessary and quotidian aspect of capitalism. Thus Heilbroner and Thurow are unusually sensitive economists (writing collaboratively, it must be observed) to note the particularly human impact of capitalism's division of labor:

> [T]he self sufficiency of individuals was greatly curtailed. [. . . A]s work became more and more finely divided, the products of work became ever smaller pieces of the total jigsaw puzzle. Individuals did not spin or weave cloth, but manipulated levers and fed the machinery that did the actual spinning or weaving. [. . .] No one of these jobs, performed by itself, would have sustained its performer for a single day; and no one of these products could have been exchanged for another product except through the complicated market network. Technology freed men and women from much material want, but it bound them to the workings of the market mechanism. (22-23)

The implications of this continual subdivision of labor for the well-being of workers are simple enough to trace when the developments are material and historical; material wealth is always measured and then recorded. But does the history of capitalism and the Industrial Revolution accurately predict the future concerns for writers in CBPP networked environments? What happens to the individual author's manifestation of self when his or her work originates and disperses over a network? Can one teach critical thinking skills in the electronic network environment? The questions of our teachers struggling with Wikipedia are coming back to the fore.

Thus far, in comparing the rhetorical situation to the development of the market system, we have begun thinking of how the roles of seller, commodity, and buyer are similar to the rhetorical roles of speaker, speech, and audience. Additionally, the change from the market, or the physical

place where individuals trade, to market theory, or the arrival of capitalism and the industrial revolution, has started us on the path of considering the parallels between modularization of material production through the Industrial Revolution and modularization of text in the information age. If economics is the science of measuring and predicting material output in the industrial age, electronic rhetoric can become the science of predicting and measuring productivity in the information age. Or, to adopt Richard Lanham's terminology, we move from "an economy of stuff" to one of information, where directing the attention of information consumers becomes the scarcest resource:

> In an economy of stuff, the disciplines that govern extracting material from the earth's crust and making stuff out of it naturally stand at the center: the physical sciences, engineering, and economics as usually written. The arts and letters, however, vital we all agree them to be, are peripheral. But in an attention economy, the two change places. The arts and letters now stand at the center. They are the disciplines that study how attention is allocated, how cultural capital is created and traded. (Lanham xii)

Lanham's perspective jumps forward to anticipate a revival of the arts and sciences based on its value of capturing the audience's attention. But before we can join him in appreciating a new role for the economics of the information age based on electronic rhetoric, we need to look further at fundamental changes that permit such a transition. We have still yet to examine the profound shift in thinking that accompanied the transition from market to market theory. In truth, that transition is best explained by considering a similar shift in rhetorical theory, or the shift from spoken to written communication.

Marketplace to Market Economy, or Pre-Literate to Literate

The rhetorical situation's transition from the spoken to the printed word is in many ways similar to the transition of economic systems from feudalism to capitalism. Or, to use the parlance of respective rhetorical and economic theorists, market theory's shift from pre-capitalism to capitalism is roughly equivalent to rhetorical theory's transition from pre-literacy to literacy. In writing about this change from a pre-literate to an alphabetic society, Eric Havelock notes the fundamental changes to literacy and culture that further strengthen the comparison to the shift of marketplace economic system from pre-capitalist times to capitalism.

Havelock sets the date of the transition from oral to written culture, at least in Greece, at about 700 B.C.E. (15), but notes that it was certainly a gradual transition, and that there is a great deal of uncertainty about setting an exact date. But there is no uncertainty in the claims that Havelock puts forth in considering the impact of the cultural shift. Havelock's central claim is that the technological change of using alphabetic characters allowed a change in cognition, or enabled a completely new level of complexity in thought. Havelock writes that "the change became the means of introducing a new state of mind – the alphabetic state of mind, if the expression be allowed" (7). Havelock seems to anticipate his own audience's objections when he continues to muse about the impact of the shift:

> How such a change could or might come about is best understood by appreciation of a physical fact: the alphabet converted the Greek spoken tongue into an artifact, thereby separating it from the speaker and making it into a "language," that is, an object available for inspection, reflection, analysis. [. . .] If it were possible to designate the new discourse by any one word, the appropriate word would be conceptual. (8)

How, then, does the transition from oral to the written dimension compare to the transition from market to market-based economy? How does a market-based economy become conceptual?

These transitions – from markets within an economy to market economy, or from oral rhetoric to written rhetoric – are equivalent because they allow for a new level of abstraction, permitting the rhetorical speaker/author or economic earner/seller to achieve distance from both the act and object of creation. As Havelock notes, the alphabet allows the writer to preserve a thought and give it sustained attention over time through the act of writing it. The transformation, however, is allowed only through the act of recasting thought in the terms of abstract alphabetic signs. The economic agent who sells a good in a market economy experiences a similar abstraction. By taking the act of economic production away from the pre-capitalist context of the creator's daily consumption, and instead preparing articles to be resold to another, the capitalist act of creation entertains a new consumer, or audience, beyond the self. The vegetable, tool, or clothing is being prepared for consumption by another, rather than the creator, and this awareness of the consumer/audience creates a distance and greater level of abstraction between the creator and the object, just as the act of writing allows the author to more readily distance himself from the thought than the pre-literate speaker.

As Heilbroner and Thurow note, this aspect of the Industrial Revolution is famous for creating great alienation in masses of workers who created soles, heels, laces, or uppers, rather than shoes. It is equally famous for creating great wealth: the accompanying transition allowed for an increase of productivity through an increase of efficiency. Marx would point out that this transition of productivity would accumulate wealth only for those who owned the means of production, while the defenders of capitalism would argue that the increased productivity meant that workers are also consumers, floating along Heilbroner and Thurow's "river of things." What

is less noted, however, is that the transformation also created permanency by establishing an ideal type in the mind of the worker. Rather than creating a shoe for personal gratification, the market economy Industrial Revolution worker participates in assembling a shoe according to an ideal type, presumably one that would be purchased by an idealized consumer. The worker need not have a managerial position or participate in the shoe assembly to anticipate the ideal type; he or she could still produce a sub-part according to the ideal type. The important aspect of this shift is that under the capitalist model of production, there must be communication about hewing a concrete product based upon an abstraction. This communication or coordination is a production cost in firm theory, as will be shown later, but anticipates the challenges of textual content integration within CBPP: workers on the line must communicate with managers about the assembly of their components into shoes, paving the way for the CBPP conversation about how low-cost content integration among multiple writers creates a readable Wikipedia article. All output needs to be coordinated to create that shoe that will be purchased in the marketplace.

Again, we find the parallel shift in the move from spoken to written rhetoric. In spoken rhetoric, the immediacy of the audience means that the creation of the message never moves too far beyond audience approval. Like the pre-capitalist worker who makes the shoe for his or her own benefit and satisfaction, in the rhetorical situation the audience and consumer are never far from the creation process. Even if the pre-capitalist worker creates the object to sell to another person, the consumer is most likely someone the worker has a relationship with -- either as family or through his or her professional reputation in a local market. In either case, that consumer is much more connected to the creator, mentally dominating the creative process, with the object of creation being closely associated with the creator's person. Similarly, the audience of the spoken word dominates its reception to the point of influencing its creation. The audience

of the spoken word almost always has the ability to speak back to the creator of the speech. Even if the circumstances of the speech greatly inhibit the audience from speaking (e.g., at a reverent ceremony, or in a crowded theater, or in a paid-Republican town hall meeting) merely the fact that the audience can speak can create a deterrent for the speaker. Thus, the transition from spoken to written word and pre-capitalist to market economies represents a new distance between creator and receiver, as well as a new level of permanence and abstraction.

This transition toward greater abstraction, either in the marketplace to market theory transition or the spoken rhetoric to written rhetoric transition, is crucial to anticipating the objections to and difficulties of understanding writing in the networked environment or CBPP. CBPP or networked writing combines the immediacy of spoken rhetoric with the increased abstraction of the written word. But this much has been observed in the transition from letters to e-mail. In contrast, CBPP writing can introduce a greater degree of anxiety about audience for the writer, not only because the audience can respond to the author's writing with the speed of oral culture, but also because the audience can collaborate in the written product. Thus, each stage represents a new level of anxiety: the pre-capitalist shoemaker knows well the wearer of the shoe, the industrial shoemaker makes shoe parts later assembled for a stranger, and the information age producer cannot even separate the role of creation and consumption, since receiver can at any time become the creator. This overall problem of fragmentation and destruction of the creative context is specifically forecasted through the work of Karl Marx.

Marx's Commodity Fetishism Predicts the Problems of Modularization

In *Das Kapital*, Marx introduces the key concept of commodity fetishism. Commodity fetishism, however, is premised upon two of Marx's earlier economic definitions, use value and

exchange value, which are part of the larger concept of Marx's theory of labor value. For Marx, each material item possesses a baseline use value, or utility: "The utility of a thing makes it a use value. But this utility is not a thing of air. Being limited by the physical properties of the commodity, it has no existence apart from that commodity. A commodity, such as iron, corn, or a diamond, is therefore, so far as it is a material thing, a use value, something useful" (46). The accompanying concept to use value is exchange value.

Exchange value is simply what one commodity is worth in trade for another. And for any given commodity, there is a variable exchange value in relation to another commodity -- i.e., so many bushels of corn will bring so many quarts of oil. For further distinction, Marx commentator Edward Reiss notes, "Exchange value and use value are not necessarily related. Air, for example, has a great use value, but zero exchange value" (97).

But Marx does trace one particular aspect of exchange value back into each produced commodity: labor. For Marx, the ultimate value within the commodity lies within the fact that human labor has created it. To assert this connection to labor, Marx writes that "It is only by being exchanged that the products of labour acquire, as values, one uniform social status, distinct from their varied forms of existence as objects of utility" (84). Once one loses sight of the fact that all value in the commodity is created only through human labor, the path is set for commodity fetishism.

Commodity fetishism is the unique transformation upon which much of modern economics, at least in Marx's view, is predicated. Exchanging the commodity opens the door to fetishizing it because it fools us into believing that the value of the commodity is somehow inherent in that object, rather than the result of the human labor required to create it. One paragraph in particular from *Das Kapital* explains this concept most directly:

> A commodity is therefore a mysterious thing, simply because in it the social character of men's labour appears to them as an objective character stamped upon the product of that labour; because the relation of the producers to the sum total of their own labour is presented to them as a social relation, existing not between themselves, but between the products of their labour. This is the reason why the products of labor become commodities, social things whose qualities are at the same time perceptible and imperceptible by the senses. [. .] There is a physical relation between physical things. But it is different with commodities. There, the existence of things *qua* commodities, and the value relation between the products of labour which stamps them as commodities, have absolutely no connection with their physical properties and with the material relations rising therefrom. There it is a definite social relation between men, that assumes, in their eyes, the fantastic form of relation between things. [. . .] This I call the Fetishism which attaches itself to the products of labour, so soon as they are produced as commodities, and which is therefore inseparable from the production of commodities. (83)

Strictly speaking, then, fetishism is the mistaken belief that value rests in the object itself, rather than in the human labor that created the commodity. This condition is enabled through the decontextualization of the commodity from the conditions of its production into a new level of abstraction via exchange value. And exchange value is necessarily created through the act of selling (or, strictly speaking, trading) the object at the market. Thus, the market serves ostensibly as the vehicle to permit exchange value, but in reality also enables commodity fetishism.

Of course, many reject Marx's economic theory. In fact, most classical economists reject the notion of the labor theory of value outright, insisting instead that the market mechanisms of

supply and demand determine the true value of the commodity. Regardless of one's position on labor theory, Marx's complaint that commodity fetishism allows one to misconstrue the true value of the commodity because it has lost its relationship to human labor is similar to the problem of how modularization allows distortion of the value of writing in CBPP, raising the stakes for Benkler's "low cost" integration to reassemble information in a meaningful way. In CBPP, it is vital that the multitudinous contributions be assessed for accuracy and relevance, two qualities stripped from them upon their separation from the act of composition. What remains to be seen is whether CBPP, or wikis specifically, possess the power to render the same pervasive cultural transformation within the context of information technology that commodity fetishism has wrought within capitalist culture – whether the commodification factor of rendering information in discreet bits will permit readers to build upon it an entire culture of desire and material gratification, similar to the way in which commodity fetishism has allowed consumerist culture to transform postmodern identity.

Within this context, it is possible to consider wikis as a tool of information commodification, acting as information decontextualizing machines, grinding thought into atomic particles, transmitting them over wavelengths, and then reassembling them at another point, devoid of authorial and content context. To even question whether or not wikis play the role of "information commodifiers" is testament to the durability and permanence of Marxian capitalist economic theory as it re-affirms itself in the information age. In commenting on the durability and ubiquitous nature of capitalism, Fredric Jameson speaks on this point in the epigraph of this chapter when he speaks of the "increasingly closed and terrifying machine"; Jameson also employs a phrase that will strike readers as particularly apt to our discussion -- "market rhetoric." Yet Jameson refers to market rhetoric in terms of the basic building blocks of

the cultural language of capitalism. In *Postmodernism*, he writes, “This allows me to express my thesis in its strongest form, which is that the rhetoric of the market has been a fundamental and central component of this ideological struggle, this struggle for the legitimation or delegitimation of left discourse” (263). Our focus on the market, then, as a mechanism for apprehending the broad technological shifts that permit economic transformations, is further legitimated as the operating metaphor for the shifts in language and knowledge production. Jameson’s use of the term “market rhetoric” is equated with the idea of capitalist rhetoric, but is also apt for Benkler’s approach to CBPP as a new mode of economic production. At the outset of this chapter, we gestured to the fact that economists Heilbroner and Thurow saw technology as a historical part of economic development. This discussion invites us to rethink of electronic writing, then, as connected to the historical development of economic forces as well. But Jameson’s phrase, “rhetoric of the market,” can now be seen with double meaning: not only does the dominant cultural paradigm control the terminology of discourse for its own legitimation, but it also predicts our investigation of the history of economics to find the future of rhetoric.

Thus far we have been examining the economic concept of the market as a way of fleshing out Benkler’s view that Commons-Based Peer Production is a new mode of economic production, appending the prior forms of the market and firm models of production. In examining the market model, we have compared its development to the development of the rhetorical situation. Most recently, we looked at how the transition from pre-capitalist markets to capitalist markets has allowed for greater abstraction of products and ideas, respectively. Marx’s comments on the labor theory of value add a depth to our understanding of markets, however, for they predict the next step of abstraction, or the commodification of thought within electronic communication by analogy to the commodification of products within the marketplace. The most

common concern for writing over electronic networks such as CBPP is that writing, unlike material goods, once modularized, becomes susceptible to the same process of commodity fetishization: once the text is taken out of its original context, it becomes more difficult to understand but easier still to misappropriate. Text, so this argument would go, is similar to Marx's commodity in that it obtains its value from the context in that it is created, and through proximity with the author. Like the commodity which is manufactured for resale rather than the good that is created for personal or familiar use, text which is detached from the author and removed from the context of the accompanying text through the electronic process of modularization, not only demands what Benkler dubs "low cost integration" in order to be reassembled with other texts to make meaning, but also perhaps loses permanently the ethereal quality of "soulfulness," or connection to the author. Again, it is Marx's concept of commodification, or the stripping away of the sense of value based on human labor, that best predicts the outcome of text that undergoes the process of modularization.

1.0, 2.0, 3.0

To get some perspective on the market, firm, and CBPP models and to see them as equivalents of oral rhetoric, written rhetoric, and electronic rhetoric, it is useful to return to Thomas Friedman. In his wide-ranging translation of current issues known as *The World is Flat*, Friedman offers a 1.0/2.0/3.0 classification scheme for understanding globalization:

> [T]here have been three great eras of globalization. The first lasted from 1492 [. . .] until around 1800. I would call this era Globalization 1.0. It shrank the world from a size large to a size medium. Globalization 1.0 was about countries and muscles. [. . .] The second great era, Globalization 2.0, lasted roughly from 1800

> to 2000, interrupted by the Great Depression and World Wars I and II. This era shrank the world from a size medium to a size small. In Globalization 2.0, the key agent of change, the dynamic force driving global integration, was multinational companies. [. . . And] right around the year 2000 we entered a whole new era: Globalization 3.0. Globalization 3.0 is shrinking the world from a size small to a size tiny and flattening the playing field at the same time. And while the dynamic force in Globalization 1.0 was countries globalizing and the dynamic force in Globalization 2.0 was companies globalizing, the dynamic force in Globalization 3.0 – the force that gives it its unique character – is the newfound power for individuals to collaborate and compete globally. (9-10)

Friedman's schematic is useful for this discussion, which is concerned less with the larger trends of globalization than with the specific roles of CBPP as an extension of two earlier economic stages. So far we have worked on a different tripartite categorization scheme: 1.0 would pair oral rhetoric and pre-capitalist economics, 2.0 would pair written rhetoric and capitalist economics, and 3.0 would offer electronic rhetoric for Commons-Based Peer Production. Having mapped the implications and analogies of the market model, it is time to look in more detail to the firm model.

The Economic Model of Firm Production

What is a firm? Benkler identifies it as an organization that emerges when individuals choose to work for a manager. Alchian and Demsetz have labeled the firm a nexus of contracts, meaning that the firm can be viewed in a "hub-and-spoke system" to refer to the classical economists' theory that a firm has legal contracts with its suppliers, workers, and customers,

which define all of its business relationships, the sum total of which is the definition of a firm (24). A more comprehensive approach to firm theory is offered by Louis Putterman and Randall S. Kroszner in their introduction to *The Economic Nature of the Firm*. They acknowledge first the work of Ronald Coase, putting forth the idea of the firm as a legitimate object for study when relatively few in the field were willing to envision it and offering the idea of transaction costs: "Coase initiated the contemporary literature by pointing out that when economic agents interact with one another, they incur 'transaction costs' that vary with the mode of interaction" (9-10). Moving forward to contemporary managerial economics, as explained by Nick Wilkinson, we will see more of a focus on transactional economics.

Wilkinson begins with the observation that in certain pursuits, there are benefits to co-operation and specialization (24), and the logical starting point for understanding firms is acknowledging that economic actors work together when there is a joint understanding of an improved material situation. Yet when individuals gather to create a business enterprise, whether it is a corporation, partnership, or sole proprietorship, Wilkinson notes that the firm is primarily a "legal fiction which simplifies business transactions because it enables the firm to contract bilaterally with suppliers, distributors, workers, managers, investors, and customers, rather than there being a situation where each party has to enter into complicated multilateral arrangements" (22). Further, much of the economic theory that predicts what type of preconditions will give rise to particular economic organizations centers around the transaction. Indeed, the transaction between two parties, whether they are individuals or firms, becomes the cellular level of economic organization. And, as has been mentioned above, transaction cost theory becomes the key for justifying the existence of the firm. Wilkinson offers that there are five main areas of

economic theory at play in defining the nature of the firm: information theory, motivation theory, agency theory, property rights theory, and game theory (22).

For the purposes of mapping out the composition classroom in the electronic environment, however, we will not need to examine the entirety of firm theory, rather than only the transaction cost theory, motivation theory, and property rights theory. Wilkinson notes that transaction cost theory is broken into two sub-components: co-ordination costs and motivation costs. Co-ordination costs include search costs, bargaining costs, and contracting costs. Search costs involve what a buyer and seller must pay in order find another party to the transaction. Bargaining costs address the amount of time either a buyer or seller pays in order to reach an agreement on price, and contracting costs are associated with formalizing the terms of the transaction. Motivation costs, on the other hand, are further broken down into the categories of hidden information and hidden action. Hidden information addresses the situation of information asymmetry, or the condition where one party in the transaction has an informational advantage over another (the seller of used car presumably knows more about the car's true condition than the buyer, as the buyer of a new car who has completed a great deal of Internet research might actually know more about what a new car is worth than does the seller). Hidden action refers to the cost of keeping parties honest; most economic scenarios assume that the parties "do what they say and say what they mean," but in reality almost everyone has paid a price for dealing with a deceptive buyer or seller (Wilkinson 22-32).

Wilkinson notes further that one of the main conclusions of transaction cost theory as it relates to firm theory is that there is an assumed point of transaction-cost-maximization for a firm: transacting with a market is easier for an individual within the firm, as the firm pays for the

overhead of doing business, but as firms grow larger and that share of overhead increases for each individual, there will come a point where overhead costs are unsustainable.

CBPP, then, can be seen as a lowering of some firm costs. Motivation costs, or the identification of what person has the right skills for a particular project, are put up as the responsibility of the individual. This ability to self-assess is offered as the great insight of CBPP, since the individual can most accurately assess his or her own interests, and for what duration s/he will stay motivated to work with a project. What motivates people to work in a firm? Wilkinson notes that firms are composed of individuals and that if a theory of a larger firm is make any sense it must first make sense on the individual level. This juncture also represents the weakest abstraction and grossest oversimplification of economic thinking: theorizing that an individual acts purely out of material self-interest. While successful contemporary economic theory no longer operates on such complete reductions, it does at least begin with the baseline assumption that people will reliably act in terms of their self-interest, most of the time. Exceptions that trouble economic models founded on self-interest include altruism, or, as Wilkinson has defined it, "any behaviour which confers a benefit to others, while involving a cost to the originator of the behaviour, with no corresponding mutual benefit" (27). Equally troubling is the converse, or spiteful behavior, which Wilkinson defines as imposing "a cost upon others, while also involving a cost to the originator of the behaviour, with no corresponding material benefit" (27).

Thus, the engine that drives every economic model, the "man on the street" who acts only out of self-interest, is fundamentally limited not only by the fact that self-interest fails to account realistically for the complex emotional, psychological, and moral drives that determine our behaviors, but also for the fact that even the self-interest abstraction contains the important

caveats of altruism and vandalism. Given these limitations, should we not then be prepared to abandon economic modeling as fundamentally flawed and hopelessly inaccurate? Perhaps not yet: if the model predicts verifiable outcomes, then it is worth retaining.

In fact, the CBPP model of economic production further challenges the counter-assumptions of altruism and vandalism: both of these concepts are important in understanding why wikis work. Altruism is a phenomenon that can account for some of the complex human motivations yielding the tremendous growth of Wikipedia: what happens when you lower the cost of altruism so that one party in a transaction can share knowledge with little or no expense? (Think of how one responds when occasionally asked directions by a stranger on the street – the vast majority of people are willing to help out when it costs them little, and they receive the benefit of feeling like an expert.) The term "vandalism" is also a well-known concept for wikis, referring to an incident where one contributor erases another's contributions without justification. Both altruism and vandalism will play important roles in our descriptions and modeling of knowledge growth in wikis, and they are both forecasted herein as essential to understanding the economic theory of the firm. The last area of firm theory we will need to review is property rights theory.

Wilkinson identifies that property rights theory is important to understanding how the firm operates in that it defines what rights both parties might have towards commodities in a transaction even after the transaction has been completed (29). The two main issues are residual control and residual returns. Residual rights of control follow the asset out of the transaction; one might purchase a copy of a book, but is not free to make and sell unlimited copies of that text. Similarly, residual returns are the rights to revenue that follow the asset. In the above example, royalties from the sale of the book, or its further reprinting, are examples of residual returns.

Looking Toward Open Source

Having reviewed the multiple concepts in place to explain the origins of Commons-Based Peer Production, and having attempted to trace those origins across – in some cases – thousands of years, it might be helpful to offer the following table as a rough guide for keeping the multiple authors and theories in place.

Table 1.1: Theoretical Organization Chart

Benkler	Rhetoric	Economics	Friedman
Market Model	Oral Rhetoric	Pre-Capitalist Market	1.0
Firm Model	Written Rhetoric	Capitalist/Market Society	2.0
Commons-Based Peer Production	Electronic Rhetoric	Information Age	3.0

This chapter has attempted to identify many of the important trends and connections among these modes of thought. Overall, however, the main intention has been to explore the background of economic theory Benkler briefly gestures toward in his article, and perhaps even explain it in such a way as to prepare the reader to predict the value of CBPP for the teaching of writing in the academy, understanding its potential as well as its limitations. Having explored the theories of the market model and the firm model, it is now time to turn our focus to the open source story, and the contemporary origins of Commons-Based Peer Production.

CHAPTER TWO

A SOFTWARE HISTORY OF COMMONS-BASED PEER PRODUCTION FOR WRITERS AND TEACHERS OF WRITING

Regardless of which developmental track of Commons-Based Peer Production (CBPP) we choose – Benkler and Coase, or Heilbroner and Thurow, or Friedman – the third stage of all these narratives remains fairly similar – the information age. In more specific terms, CBPP originates as a software phenomenon, or as a part of the internet revolution that enables the information age. Thus, all of the historical and theoretical discussion to this point begins to converge in the very specific set of circumstances which allowed the creation of a particular software operating system known as Unix. In the contemporary era of desktop computing, it is easy to forget that computers require a software layer known as the operating system that works underneath and enables applications such as the word processor, Internet browser, or e-mail manager. Most computer users run the Windows operating system, and some might not be able to name their operating system. This is to be expected, since a good operating system is often invisible to the end user. But some forty years ago, before the era of cheap desktop computing, multiple operating systems existed to run programs on a phalanx of hardware platforms. The story of how one particular operating system came to the fore, created a new pattern for literate activities, and eventually started a third mode of economic production predates even the Internet. Understanding the origins and contexts of CBPP requires an understanding of its most famous iteration – Linux, the open source operating system that started the CBPP phenomenon. And understanding Linux means, in turn, looking at the origins of Unix, the proprietary operating

system of an earlier generation that provided the conceptual basis of operating systems everywhere.

The history of Unix has been developed elsewhere, perhaps best in books such as Peter Salus's *A Quarter Century of UNIX* (1994), Glyn Moody's *Rebel Code* (2001), and Peter Wayner's *Free for All: How Linux and the Free Software Movement Undercut the High-Tech Titans* (2000). Each of these histories, however, serves a particular perspective, in some cases that of the systems design engineer and in other cases that of the cultural futurist. No accounts of the history of Unix have thoroughly revealed how the fundamental components of that story showcase writing, or collaborative writing in particular. With the specific foreknowledge of Commons-Based Peer Production as a mode of economic production, as outlined in Chapter 1, the history of Unix and Open Source must be re-evaluated and re-assessed in terms of how it contributes to the development of CBPP principles and how those contributions apply to the teaching of writing. Therefore, in re-evaluating the history of Unix and Open Source software, this chapter will search for the origins of Benkler's concept of granularization of work and the continued practice of modularization within software development, the economic theory of which was developed extensively in Chapter 1. We will also look for the origins of the crucial concept of low-cost integration in the development practices of Unix and Linux code writers and look to see if those practices reliably predict the continued evolution of integration within CBPP systems. While Chapter 3 will look specifically at the integration of composition and rhetorical theory with CBPP, this chapter will interrogate the history Unix and Open Source development for signs of foreshadowing changes in composition pedagogy, including the changes to the concept of collaboration and the rhetorical roles of speaker, speech, and audience. The fundamentals of CBPP lie in the Unix story, which is part historical accident, part genius, part

perseverance, and ultimately the triumph of common property and common sense. The story also takes rather surprising turns through gaming, fiction, collaboration, and textuality as the fundamental concepts of operating systems emerge.

What Is an Operating System, and Why Do You Need One?

No doubt about it – writing an operating system for a computer is serious business. To get a computer application to run, one needs some underlying software to marshal the hardware resources. One of the best and most common analogies to describe how the heart of an operating system, or its kernel, works, is that of a hotel clerk. In the fictional OS hotel, there are several characters: the hotel itself serves the role of the PC, with individual hotel rooms playing the role of memory addresses, or the physical assets of the PC for running a software program. Now in this fictional hotel, the guests are computer programs who need to use the hotel's rooms and facilities. And the clerk plays the role of the OS kernel.

The clerk/kernel wants to make sure that the hotel's rooms are fully utilized (like all good clerks she wants the boss to be happy). But she also wants to keep the guests/programs happy. Her job would be simple if all the guests checked into one room for one night, and didn't want to use the kitchen, the gym, or the pool. Her job would be easier still if only one guest showed up for one room on any given night. Of course, it rarely works out that easily: her guests arrive without reservations; more guests might arrive than she has rooms for; once they are there they might change the number of rooms the want; they might decide they want something from room service that's not on the menu; or they clear out of a room without announcing their departure.

The realities of the modern computer are a good deal more complicated, but the basic premise still remains: before a computer can execute applications, it needs a middleware layer to

communicate between the program software and the hardware. Ironically, operating systems have become so standardized that most computer users are scarcely aware of their existence; as Ken Thompson, co-developer of Unix, states, “Even if you write a better operating system, nobody who actually uses computers today knows what an operating system interface is; their interface is the browser or Office” (Thompson).

We now live in an era of cheap desktop computing. The standard comparison of contemporary to historical computing power is often evoked by comparing a current computing environment to the computing capacity needed by NASA to send a man to the moon. That is to say, when relatively cheap desktop computers offer 512 megabytes of RAM, it is easy to forget that the Apollo guidance computer of 1969 – robust enough to send man to the moon and back – worked within 30,720 bits, or 3.75 kilobytes of memory. This would mean that the 512 megabytes of memory on a desktop computer has roughly enough power to launch (and recover, which may be the more difficult end of the business) 139,810 moon shots (cf. Evans). Or, to put it another way and compare hardware memory to virtual memory, the average Ipod of 2005 (with 20 megabytes of memory) could power around 5,461 simultaneous 1969 trips to the moon.

That clichéd comparison to 1969 and space travel is key to the Unix story. In the summer of that same year Ken Thompson, a computer programmer and Berkeley graduate, wanted to play a game on his computer at work. Since there were no such games, he had to write it himself, as we will see in more detail later. But if this sounds like a complicated task, it gets worse: in 1969 there was no such thing as a “personal” computer. Computing hardware was enormously expensive and large. The machine that Thompson was working on was owned by the research institute of very large corporation, a protected monopoly in fact, and a partner of the military industrial complex of the Cold War U.S. So whenever a large, expensive machine was

purchased, its users were asked to share their access. This led to teams of computer users accessing the machine in 24-hour shifts; to make matters more complicated, each team would author a computer program in a high level language, which then was reduced to an intermediate level language (assembly code), then to the lowest level language (machine code). Each shift of users would start with a blank slate, or clear memory addresses, then load the machine with the programs, then enter the data for the program to process. When those users' shift ended, the slate was wiped clean again, and the next user group restarted the entire cycle. Computer programs were not the sole example of recursion; their authors, too, were looping around the machine as their code was looping inside the machine.

But that is a best case scenario. Authoring good computer programs is in many respects quite similar to authoring good writing, not the least of which is that a successful program requires many drafts. Debugging takes valuable computing time, and if your shift ended before your debugging was successful, one could easily lose the progress made. This problem is more significant than the mere irritation of a few computer geeks: computer programmers and their clients were essentially attempting to solve a problem of supply and demand. Too many people needed the use of a scarce physical resource, the computer itself, and their lack of computing access was triggering inefficiencies that rippled outward. If a programmer lost debugging time, she might also lose a unique solution. Again, the parallel between writing programs and writing text succeeds at capturing the situation best: writing and revising is tough enough, but if one has to revise text between 2:00 AM and 5:00 AM under the pressure of possibly losing the revisions if the project is not completed in that three-hour framework, then the cost of the work environment is measured ultimately in terms of lost creativity and innovation. Not many minds

will be maximally creative, productive, or ingenious while working under the constant threat that the entire project will disappear at any moment.

This arrangement is significant not only as a problem of political economy, but also as a formative circumstance of Commons-Based Peer Production. Given that the scarce resource of the computing environment in the 1950's and 60's was hardware, a great emphasis was placed on designing and manufacturing more and more powerful computers. American business management, trained by an era of successful manufacturing of material goods to win one hot war and another cold one, naturally envisioned the solution of the computing problem in terms of material production. And they were correct, initially. Before more efficient and widespread computing could take place, there would need to be a greater proliferation of machines. But the legacy of this physical problem would have a lasting twofold impact: first, an emphasis on the machine, rather than on the code running on the machine, would much later lead IBM to sell the licensing rights for operating systems on its machines to a then obscure firm called Microsoft. This moment clearly marked the shift in most scarce computing resource from hardware to software, and the official creation of the most successful information technology monopoly in history. But more important, the scarcity of important physical computing resources would establish another enduring principle of CBPP: collaboration. Most of the initial creators of Unix cut their teeth in a world of scarce computing resources, and as Steven Weber writes, this experience led in turn to a culture of collaboration amongst the rank and file programmers across the boundaries of military, academic, and business computing worlds. Addressing the difficulties in an age of scarce computing resources, Weber writes:

> The early generation of modern computers was awkward, expensive, tricky to maintain, and not very powerful. The capabilities that we take for granted today –

> huge memories, fast processors, reliable and vast storage media, and, most importantly, connectivity – were hardly imaginable in 1952 when IBM put on the market the 701, its first commercial electronic computer. [. . .] Price aside, the hard part of owning [an early] machine was writing the instructions, or software, that told the machine what to do. [. . .] The engineers facing this challenge recognized the obvious next step: get everyone together who was using the machine, regardless of what company they worked for, and build [software tools] that everyone could use. [. . .] Everyone needed a set of basic tools, nobody could afford to build them alone, (at least not quickly enough), and efficiency dictated collaboration across corporate boundaries. (21 -2)

Even after business management began to enforce a division between computer programmers and systems designers, the early atmosphere of collaboration across corporate, academic, and government boundaries prevailed in the computing community. Often, this collaboration amongst programmers was officially sanctioned by the employers, and often it was not. But in the world of scarce computing resources, collaboration was ubiquitous, and collaboration has continued as a *sine qua non* of Commons-Based Peer Production.

Collaboration and Laziness

If collaboration was a necessary condition in the world of early modern computing, why has it persisted, even accelerated, in the era of cheap, powerful, and abundant computers? There are multiple theories to explain why collaboration continues long after the hardware limitations were removed. One theory advanced by the more zealous advocates of open source software, the most prominent CBPP phenomenon in the realm of software development, is that collaboration is

a natural ideological choice, that people prefer to work together rather than alone, and that business and legal frameworks that seek to impede collaboration are a *prima facia* violation of some fundamental aspect of human nature (see Stallman). Conversely, those who support proprietary models of software development often assert that collaboration in open source software is a natural grouping of people who, for whatever reason, were not able to get their work released in the business world as individuals, i.e., the work product of voluntary collaboration was not commercial grade (see Mundie). More compelling, perhaps, is the political economy theory of the commons, or a resource open to everyone, which no user can deplete and most users can improve. Or, put more simply, no one wants to spend time repeating unnecessary work.

The computing community has burned a great amount of energy on this topic. Often, the community recasts the discussion in terms of "laziness," attracting more attention to the discussion by apparently claiming, with pride, a vice. In truth, discussions on "laziness" point up the silent slur against collaborative work as unreliable and un-virtuous, a violation of Protestant work ethic and the notion of individual authority so ingrained in the practice of capitalism. Different cultural camps have certainly formed in the years since the early computing days, and each often develops slogans. The Perl programming group is certainly no exception. In the self-published "Picking Up Perl," Bradley M. Kuhn redefines "laziness" as virtue when he writes that "Lazy programmers do not like to write the same code more than once. Thus, a lazy programmer is much more likely to write code to be reusable and as applicable in as many situations as possible" (Kuhn). Larry Wall, author of many open source programs, as well as the founder of the Perl scripting language/community, continues to frame this concept in controversial diction, but returns us once again to the master analogy of comparing machine language to human

language. Wall writes that: “The three great virtues of programming are laziness, impatience, and hubris. [. . .] Written languages probably began with impatience. Or laziness.” Wall’s point is that computing code, like human language, identifies and defines a community out of necessity; in order to be only reasonably productive, a programmer cannot continually recreate a programming environment. She needs to work with a set of tools that reasonably can be expected to be work in other people’s machines; she needs to write in language her readers understand. Thus, the virtue of “laziness”: early programmers such as Thompson collaborated to define that common operating environment in Unix for all programmers. Larry Wall, however, continues to draw out this virtue in terms of the larger comparison to language: “Without written languages, you had to meet another person face to face to communicate with them [. . .] but written language gave people symbols, symbols that could stand for things – if the community could agree on what the symbols stood for. So language requires consensus. [. . .] It is, in short, a symbol that ties a community together” (127).

Pekka Himanen contributes to the development of this theme in *The Hacker Ethic*. In that volume Himanen’s text is sandwiched between the contributions of Linus Torvalds, originator of Linux, and Manuel Castells, author of the influential and comprehensive book *The Information Age*. But Himanen’s overall contribution to the concept of laziness as a virtue is treated by all three authors, as something of a counterstatement to concept of the Protestant Work Ethic. Himanen, Torvalds, and Castells would all agree with Wall that the computer-programmer mentality collaborates to build a common set of tools, but expands the concept in ways that invoke Benkler’s CBPP definition. In sum, *The Hacker Ethic* would hold that the idea of workers reporting to a specific place, at a specific time, to perform a job specified by another person, has died. It has been replaced (or is being replaced) by the hacker’s work ethic, where people work

when the want, where they want, and only on projects that appeal to them. Laziness, here, means that individuals work only when their creativity is piqued. Obviously, Himanen's text cannot maintain that this work arrangement is the standard arrangement; most economies are based on the capitalist model. However, Benkler's CBPP goes a long way toward examining more realistically how the modern workplace, in the age of the massive network, has shifted the working environment to expose the fact that the truest scarce resource is human creativity. In turn, Benkler's CBPP integrates the misnomer of laziness toward explaining the motivations for Open Source software contributors: many people who do not find their creative potential fulfilled in traditional work environments elect to spend their own time working on a project that holds more interest for them.

Ken Thompson's motivation for starting Unix as a collaborative project was simply to avoid repeating unnecessary work. Unix was to be a set of common tools that Thompson and others at Bell Labs could use as a basis for their individual projects. The idea of "laziness," pejorative or not, enters specifically into the conversation at point where it addresses what kind of work one prefers to do over another. The assumption, correct or incorrect, is that individuals would rather spend time working on novel projects that engage their creativity rather than needlessly repeating the same task. Hacker terminology chooses to deem this quality "laziness." But Benkler's political economy theory is much more accurate when it observes, simply, that once work is modular, granular, and the worker is free to choose what types of projects to which he or she will contribute, then human creativity is the scare resource. Thus, Thompson's choice to collaborate in the creation of Unix, or his choice to work "lazily" on Unix and structure his environment so that he would dedicate more time toward work he found engaging, became a

fundamental principle of Unix. Much later, it would become obvious that self-selection of work was also a fundamental principle of Open Source and CBPP.

Should writing teachers concern themselves about “laziness”? If and only if their students will write in environments where their writing is modular, granular, independent, and freely exchanged over the World Wide Web. In short, yes. The persistence of this massively networked electronic writing environment requires nothing short of a reassessment of the five canons of rhetoric. Invention, Arrangement, Style, Memory, and Delivery might soon include categories such as assessment (deciding which projects a writer wishes to contribute towards, or, which is “laziest”), or integration (evaluating the work of yourself and others in terms of the project’s needs). A discussion of the re-orientation of composition and rhetoric theory to accommodate the work dynamics of CBPP is included in Chapter 4, which extends this conversation beyond this chapter’s specific focus of software development.

If software developers, even those from competing institutions, can mutually benefit from a shared code base that they then develop on individual paths, then collaboration makes sense for all of the parties involved. Development of utilitarian blocks of code, that perform one particular task and are then shelved in a joint library to be removed and reassembled by other programmers, is a concept known as object-oriented programming, a key concept of modern computing.

A deliberate focus on collaboration eventually led to the Unix Philosophy statement. And in the Unix Philosophy statement, we can find the origins of one of the key components of CBPP as defined by Benkler: modularization, which simply means that workers do not need to wait on another person to complete a task before starting their own contribution. Thus, work is “modular” if it can be broken into discrete components that do not depend on sequence for

completion. Around 1973, Unix programmer Doug McIlroy summarized the Unix Philosophy this way: "The Unix Philosophy: Write programs that do one thing and do it well; Write programs that work together; Write programs that handle text streams, because that is a universal interface" (Salus 53). The CBPP concept of modularization is in both the first and second principles. Having a clearly-defined goal of "doing one thing" is a necessary precondition of modularization. Secondly, development of discrete components does not preclude "working well" together; in fact, just the opposite is true. For work to be modular it must eventually be interchangeable. And interchangeability rests on collaborative work.

Back in 1964, collaboration was also the driving force behind a project known as Multics. Before working for Bell Labs in the summer of 1969, Thompson worked on the Multics project in 1966, which was an attempt to relieve some of the problems caused by scarce computing resources. Multics was a joint project among MIT, Bell Labs, and General Electric to improve MIT's existing mainframe timesharing system, called CTSS (Compatible Timesharing System). The purpose of CTSS was to implement what is now termed multitasking, but for a mainframe computer system with multiple users. If the mainframe had an array of different resources, and users needed only portions of those resources at any given time, then there was a need to break up user jobs so that they kept computing resources fully-utilized. Multics was a very large project, with very ambitious goals, and very deep funding – the Multics System Programmer's Manual ran some 3,000 pages (Salus 29). But ultimately, Multics's size proved its undoing. Contractors were unable to meet deadlines, and by April of 1969, Bell Labs withdrew from the project, effectively terminating Multics (Van Vleck, qtd. in Salus 29). Yet even though Multics was not the success its sponsors had hoped for, Thompson and a few others of Bell Labs' most influential programmers came away with fundamental ideas for their next project. Dennis

Ritchie, another co-developer of Unix, states that: “There were a lot of fundamental things we learned from Multics, [including] a tree-structured file system; a separate, identifiable program to do command interpretation [shell]; more fundamentally, the structure of files, that is, no structure, except as byte arrays, in most cases not interpreted by the operating system [. . .]” (Ritchie qtd. in Salus 30). These concepts – particularly the idea that “everything is a file” – would become the formative concepts of Unix.

Ken Thompson also returned from the defunct Multics project to Bell Labs to pursue that video game. And he was beginning to find out that the game he was designing for use on the GE-635 was a very poor rendering of space flight. In Chapter 0 of *A Quarter Century of UNIX*, “Prelude to Space,” Peter H. Salus narrates Thompson’s unsatisfactory experience this way:

> Trapped in the plane of the ecliptic, between Mars and the asteroid belt, Ken punched a complicated maneuver into his navigational computer and glanced at the makeshift screen in front of him. <n> [stop], <f> [front], <l> [left], <n>. Nothing. A few seconds later, he discerned barely noticeable acitivity. [. . .]. Dammit, Ken muttered. Damn the folks who authorized equipment. Damn everyone in an administrative job. Damn the bean counters. It was then that he realized that this was no way to play Space Travel. The machine wasn’t up to it. The software wasn’t up to it. And he was going to solve the problem. (5)

It is worth pausing to reflect on the fact that Unix, the undergirding of most of the world’s computing, began as a way to build a better video game. Certainly the moment can and should be celebrated by video gaming enthusiasts. But more important to this project is the understanding that gaming is closely related to “laziness” and the application of creativity. Thompson was not chastised by his employer for using computing resources to write a game; instead, Thompson’s

motivation for creating a game nudged him toward writing an awful lot of useful software to support it. This is not to suggest that Bell Labs knew in advance that Thompson's gaming pursuits would lead to Unix. Instead, we should consider that Unix, as the first CBPP project, was born in a pure research environment where deviation from legitimate work was understood to be part of the creative process. Individuals were therefore freer to engage their creativity, and ultimately that creativity reaped great rewards for the underwriting business.

At Work and Play in the Fields of Bell Labs

As a research center, Bell Labs gave a lot of latitude to its employees to determine how they would remain productive. In another article, Ritchie gives further explanation about the Bell Labs working environment where gaming played a significant role in the development of the world's most famous operating system:

> Ken first did Space Travel on the GE 635 [. . .]. It was expensive to run; a game would cost about $50. Of course it was internal "funny money."
>
> More or less at the same time, Ken discovered the PDP-7, which had been fitted out with a nice vector display. [. . .] This PDP-7 Graphics-II system was much neater than the 635's display, even if older. The PDP-7 was a real computer, not a peripheral, albeit small even by 1968 standards. By then, it was not used much and it was free even by funny-money standards. So Ken moved ST to it, and ran the game standalone. The program was written from scratch, all in assembly language, and even including a complete floating-point arithmetic simulator.

> Also, about this time, Ken again got the urge to write his own operating system. He had started on such a project before, but on a much bigger machine -- the GE 645 Multics machine. It didn't take long to realize that he couldn't keep the machine.
>
> Because Ken was now familiar with the '7 and knew he could use it as much as he wanted, the first version of Unix was written on this PDP-7. So ST came before Unix, but doing ST led him to a place in which he could write the first version of Unix. (Ritchie “Homepage”)

Thus, in Ritchie’s explanation, the software tools needed to run the computer were first envisioned in terms of gaming, or even more broadly construed, fictionalization. Thompson was seeking to write an interactive software simulation of the physics of space travel, motivated partly the challenge of creating a performative fictional space, as well as conquering the software and engineering challenges of creating such an environment. Ritchie notes that “Throughout his career at the Labs, Ken devoted amazing energy to games of various kinds” (Ritchie, “Unix”). But Thompson was interested in more than Space Travel: chess was also his passion and led to an early game on the same PDP-7 system. There were also games such as “Moo” (a numerical version of 21 questions), and a graphical tic-tac-toe, but Thompson’s main gaming passion was chess. The pursuit of better chess simulations would even lead Thompson to design hardware as well as software. In summing up Thompson’s passion for gaming over the span of his career, Ritchie states that “Ken has always been a problem solver and a tool builder. He is equally excited by games, puzzles, and technology creation, and I don't think he really distinguishes among them” (Ritchie “Unix”). This perspective – that serious business and games are on the

same plane – would turn out to be central to what Pekka Himanen and Linus Torvalds would later dub “The Hacker Ethic.” Computer programmers often work best when they work to achieve a specific and tangible goal. Hacking is just that – using existing resources, often in unexpected ways, to meet goals. In fact, much of computer coding is now taught in this manner: introduce a goal, then the skill, then apply the skill to meet the goal. So Thompson’s contribution is not only his work on the operating system, nor only his development of the language “B,” but also serving as an early example of the pragmatism of pursuing a seemingly frivolous goal – a game – and then engineering the necessary equipment to make it real.

Thompson more fully explains his view of what was considered appropriate use of time and resources in his workplace, and whether the pursuit of a game was a legitimate use of his time this way in response to a question about his pursuit of a music collection while at work: “[. . .] if you haven't noticed, almost everything I've done is personal interest. Almost everything I've done has been supported and I'm allowed to do it, but it's always been on the edge of what's acceptable for computer science at the time. Even Unix was right on the edge of what was acceptable at Bell Labs at the time. That's almost been my history” (Thompson).

Thompson may not have been in open rebellion against management at Bell Labs, but the fact that he at least felt as if he were “on the edge of what’s acceptable” in a pure research environment serves as another precept of CBPP. Perceived transgression of expectations and boundaries joins the desire to facilitate play as a formative aspect of the CBPP creation environment. Bell Labs during the 1960s occupied a unique place within the U.S. military industrial complex. Dedicated to the pursuit of pure research, it often partnered with the government through public universities or the military. The primary difference for Bell labs, however, is the business environment: the creation and funding of these research environment

labs required a massive, stable, revenue-producing base such as the legitimated monopoly that was AT&T. Certainly, AT&T management recognized that a pure research lab would pursue projects and ideas with no market potential. But eventually, work at the labs would be evaluated for its potential to create profits for AT&T. Those profits could come in the form of original research applied to the marketplace directly by AT&T, or sold to other businesses in the form of licensing. But either way, the demands of the marketplace were a permanent part of the Unix creation environment. These realities of the business world would mix play and transgression to form a unique and unpredictable mix in the development of CBPP.

But in terms of understanding Unix as the root of all CBPP and then the relationship of CBPP to teaching writing, it essential to understand Thompson's activity not only as gaming, but more broadly as an expression of writing fiction. Thompson was envisioning a fictional space flight, and his means of performing that fiction was writing code. Thompson could have easily chosen a different medium, human-readable language, but he preferred instead to work with machine-readable language. Computer code gives his project a distinctively different rhetorical description than that of prose fiction, but the change in methods does not alter the goal of placing the audience in the position of imagining space flight. The rhetoric of Space Travel still employs a writer/speaker (Thompson), a text/speech (Space Travel), and reader/audience (player). Rather, the more significant change introduced by Space Travel is the way Thompson and others would treat the underlying code that made it possible.

In a first comparison of video game to text, and the manner in which the video game alters the more familiar rhetoric of text, we are easily drawn to the differences between roles: Is a gamer like or unlike a reader? Should we really consider a video game on the same level as text? Does the coder write for the machine or the human audience? These immediate contrasts capture

the mind's eye, to be certain, and the rhetorical comparisons between coding and writing have been entertained elsewhere (cf. Cummings).

But historical fact of the development of Unix and Open Source suggests some conclusions that carry over to the teaching of writing most readily. First, the comparison of the game to text masks a deeper reality: the coder's role is more like that of the author of drama, who writes a play that is then performed (cf. Jesper). As the author of Space Travel, Thompson creates a visual rendering of space flight, which players then perform during each game. The underlying code remains unchanged, yielding performance after individual performance as players interact with the fixed text through the endlessly recursive structure of the game. But most important is what Thompson did with the underlying operating system code: he shared it and invited revisions. Recall that Space Flight is an application which only functions on a computer by the graces of the operating system environment. Thompson, as author not only of Space Travel, but of Unix, Space Travel's (eventual) underlying operating system, would invite others to collaborate on that operating system code. Thus the text of Space Travel, endlessly performed by multiple readers, was positioned on top of code that was itself endlessly revised. The parallel for the teaching of writing is that not only does the text exist when performed by the audience, and that each of those performances is a unique interaction between player and game (or reader and text), but also that the fundamental framework that permits the text – language – is shared and revisable by author and reader alike. This understanding, a fundamental principle of rhetorical study, guarantees fluidity of both the creation and interpretation of language. But linguistic changes in language are glacial in pacing; electronic alterations to operating system code are often immediate. Given this platform of instability, writing must then be taught from the perspective of collaboration, not only in acknowledgment of the fundamental realities of

language and text, but also of the history of Unix and Open Source. The fundamental environment of textual creation is electronic, and text of electronic environments not only makes meaning through collaboration between author and reader, but its electronic platform is subject to constant revision, as well. Thus, the platform is inherently drawn into the web of writing: we cannot teach writing as if it were independent of the electronic environment, and to teach it in an informed awareness of that environment demands that we understand collaboration on a new level. Collaboration began at the level of the operating system, then moved up inexorably through the texts that its word processors create.

As the history of Unix and Open Source shows, the operating systems and software that permit writing in electronic environments are products of collaboration, a group writing project. If writing is created in the electronic environment, then it is necessarily shaped or imprinted with those collaborative realities, as the tools of electronic text creation mimic the vision of the environment's creators. As composition teachers, we are just beginning to understand that electronic texts are inherently collaborative ventures, dissolving the understanding of writer as fixed and static. While CBPP and wikis are the easiest examples of multiple-author, multiple-reader texts their flexibility and instability, however, are not necessarily a fixed choice, but rather the inevitable product of the revised and infinitely-revisable code which created it. Wikis, and CBPP, force us to address the instability of language not only as it has been envisioned by linguists and postmodernists, but as the logical product of the evolving electronic environment that creates electronic text.

The Legitimate Businessmen's Club

On January 24, 1956, Western Electric and AT&T, the parent company of Bell Labs, signed a consent decree with the U.S. Department of Justice. This decree would mark a shift in the business culture of Bell Labs, but it would also have profound, unintended, and supremely ironic consequences for the development of Unix and its later descendents, BSD (a parallel open source operating system) and Linux. In effect, a single corporate business decision, made on the basis of a business judgment – which could only be evaluated as prudent and conforming to sound principles of business management – would create a the most serious challenge to proprietary software in the history of computing.

AT&T was in the telephone business. In the 1950's, it was essentially licensed by the U.S. government to act as the sole provider for the nation's telephone needs. The length and breadth of Ma Bell's reach was far and wide; even in 2005, as a mere shell of its former self, recently sold up to SBC communications, the official AT&T webpage statement of its own history gives a sense to its enduring claim when it states that "The history of AT&T is in large measure the history of the telephone in the United States" (AT&T). Yet AT&T's position as the sole source of all telephone service in the United States depended upon the government's fiat, allowing it to operate without any competition. Preserving, strengthening, and extending that *raison d'être* was the primary function of AT&T business management.

Thus, it would come as no surprise that when the U.S. Justice Department and Federal Trade Commission became concerned that many of AT&T's activities were not part of its primary business of providing telephone service, AT&T management was willing to comply with the wishes of the U.S. government and avoid serious legal action. In 1949, the U.S. Government brought suit action against AT&T to seek its complete divestiture of Western

Electric. At that time, AT&T held complete ownership over Western Electric, the sole manufacturer of telephone equipment. AT&T would allow no other phone to connect to its network. Though it took some six years to negotiate, AT&T finally concluded that no corporate activity was worth jeopardizing its governmental charter to exist as a legal telephone monopoly and signed the consent decree. That controlling portion of that decree states that "The defendant AT&T is enjoined and restrained from engaging, either directly, or indirectly through its subsidiaries other than Western and Western's subsidiaries, in any business other than the furnishing of common carrier communications services" ("Western Electric"). AT&T lawyers took a conservative approach in developing a business policy that conformed to the consent decree. There were some exceptions, but AT&T officially wanted no involvement in any business but the telephone business. Steven Weber writes that "It was the AT&T lawyers who read the agreement essentially to mean 'no business other than phones and telegrams,' so as not to aggravate and already strained relationship with the Department of Justice. That understanding filtered up through AT&T management to become part of the company's self-understanding" (22). AT&T was to be a "legitimate" business, and any involvement with other projects threatened to the kill the proverbial fatted calf.

Further still, the consent decree specifies in section X that "The defendants are each ordered and directed to grant or cause to be granted, to any applicant who shall make written application therefore at any time or from time to time, non-exclusive licenses under all claims of any, some or all existing and future Bell System patents [. . .]" ("Western Electric"). Additionally, AT&T had to sell its future patents for a nominal flat fee – a pricing structure that did not generate a continuing revenue stream. Thus, AT&T was to be in the telephone business, and if in the practice of the telephone business it happened to create any additional patentable

non-telephone products, it had to sell them cheap to anyone who might ask for them. Thus, the question became, what to do with Unix?

Unix was growing rapidly. It had transformed from Ken Thompson and Dennis Ritchie's pet project into a very useful computing tool. New computers came and left at Bell labs, and Unix was dutifully hacked to fit each new machine. By 1971, Unix was ready to release its first edition. A manual was prepared (Ritchie: "Manual"). In an exact parallel to the thought processes of traditional print publication, the authors of Unix found that publication of a Unix manual triggered self-reflection and peer review. Manual publication was a coming-of-age for Unix, as noted by some of the programmers who worked both on the development of Unix and the manual preparation: "Now you may think of that as a clerical job, but don't think of it that way. The fact that there was a manual, that [Doug McIlroy, a co-creator on Unix] insisted on a high standard in the manual, meant that he insisted on a high standard of every one of the programs documented" (Fraser, qtd. in Salus, 39). This reveals and re-emphasizes several important parallels between Unix and traditional print literacy. First, Unix is a collaborative document, very similar to a multiple corpus document such as the Bible. Each Unix contributor worked on a program, or, often, a command. Each contributor had a login, and therefore a signature. According to another Unix author, "the principle involved was a simple one: 'He who touched it last, owned it'" (Cherry qtd. in Salus, 41). Program authors thus had the responsibility to ensure that their program or command was functioning properly and that the underlying code was improved by his or her contribution. All alterations to the code carried the electronic signature of the editor and the obligation to truthfully represent the status of the sub-project in the manual.

In terms of Commons-Based Peer Production, then, we have the historical root of the most elusive component for a successful project: low-cost integration. Recall that Benkler defines the necessary components of CBPP as modularization, granularity, and cheap integration, meaning that work suited for CBPP must be (1) free of sequential order, (2) flexible in scope, and (3) with widely distributed, yet reliable, editorial responsibilities. By creating a rule that "he who touched it last owned it," Unix developers were literally distributing editorial powers. Each author would be held responsible for edits made with his or her login. (In fact, the authors of the first Unix manual were determined in a similar manner, with "ken" for Ken Thompson, "dmr" for Dennis M. Ritchie, "jfo" for Joseph F. Osanna, Jr., and "rhm" for Robert Morris) (Salus 41). Yet just as important, the process of publishing the manual -- and a healthy collaborative culture generally – instituted an expectation of high standards. No contributor wanted to be known as someone who introduced a bug into the Unix code just before manual publication. By combining these two essential features, authorship attribution and a culture of high expectations, the Unix group achieved lost cost integration.

"He who touched it last" also offers insight into the origins of the third condition of CBPP, or granularization. For CBPP to succeed, one needs work that can be enlarged or reduced as needed; from the perspective of the worker, the work needs to be something to which she can contribute as little or as much as she finds compelling. A "granular" contribution to a CBPP project must remain meaningful to both the worker and the project. Unix code was being written in an environment where many people were reviewing the work and could offer fixes as large or as small as were necessary. Thus, a contribution to fix a bug could be as small as one keystroke. As the coding environment infers, though, small changes also carry weight in terms of larger responsibility for the entire project: if your one-line fix causes a problem elsewhere in the

program, then your fix has created another problem in terms of integration. As the open source coding maxim “With enough eyeballs, all bugs are shallow” explains, granularity is essential: if one person can see the fix, then that person needs to be able to contribute. The Unix development environment also created for CBPP this third and final principle.

It is worth considering, at this point, how the Unix developers met a technical characteristic that also predetermines the existence of CBPP. The Unix developers in 1971 were working on an intranet, or a small networked environment within a local group. Benkler states that the Internet, or an easily accessible, massively-distributed network, is a precondition for the emergence of successful CBPP. The Unix team’s network was easily accessed by its participants, but was more ideal than today’s Internet for achieving low-cost integration. Due to its size and location -- within a corporate structure – it struck a balance between the need for easy exchange of information between members of the group and individual responsibility for the integration of that work. CBPP today is a much different proposition: by applying the same principle over the Internet, a project such as Wikipedia is able to capture the intelligence, creativity, and insight a millions of participants. Yet, the project struggles to find ways to make certain that the contributions of the individuals to the project are both relevant and reliable. In short, the larger the network, the greater the potential for both significance and gibberish; there is no bond between participants-as-firm as working on Unix for the same employer, and there is no involuntary electronic signature. But just after 1971, the common denominator of corporate identity was about to get stretched.

Unix contributors were achieving low-cost integration within the walls of Bell Labs. But the project was expanding beyond Bell Labs. Since Unix had its roots in Multics, and Multics had been a joint project, Unix development was no secret among the Multics veterans.

Thompson and Ritchie had a good thing, and they were happy to share it with other programmers. Unix began to expand rapidly in 1974 to other institutions; as Salus records "The office staff [at Bell Labs] was, simply, overwhelmed by the number of requests for Unix licenses" (60).

Yet Unix was not a telephone. It was not a telegraph. It was a system of code that allowed computers to run programs. Specifically, within Bell Labs, Unix was running at Bell Labs's Research and Patent department (Salus 44). When the third edition of Unix emerged in February of 1973, the manual noted that there were sixteen installations, with more expected (Salus 47). When Ken Thompson gave a presentation on Unix at an academic computing conference in the fall of 1973, and then when that paper was published in the conference proceedings that summer, a flood of requests came in. For AT&T, this caused something of a dilemma: clearly AT&T could not sell Unix as a part of its telephone or telegraph business. The only choice under the consent decree was to sell a license for Unix at a nominal (though nominal in terms of institutional money only), flat rate. Soon, a Unix users group was established, and the first institutional mailing list gives a good idea of the breadth of institutions that were interested in purchasing Unix. The list includes: Bell Telephone Laboratories, four colleges, twenty-one universities (such as Case Western Reserve, Columbia, Stanford, Harvard), the Naval Postgraduate School, The Children's Museum, The Rand Corporation, and the Oregon Museum of Science and Industry (Salus 67-68). In short, institutions of all types were interested in purchasing a Unix license, and AT&T felt as if it were bound by the consent decree to sell it to most anyone who asked for it and paid for the license.

As long as AT&T could make the case that Unix was part of the back-end of its telephone and telegraph business, and as long as it licensed the patented technology for a nominal fee, then

AT&T felt it was in compliance with the consent decree. Within AT&T management, there were varying opinions as to whether or not Unix would make a commercially viable product. But as long as potential revenue from selling Unix was less than the revenue from a nationwide telephone monopoly, there was little point in considering the sale and marketing of Unix for AT&T. Thus, whenever AT&T sold a Unix license, it included a rather strange statement that the product was sold "as is," that there would be no support, and payment was to be made in advance. As Peter Salus records, Andy Tannenbaum, another early Unix developer, traveled to many Unix conferences. Part of Tannebuam's standard presentation was a projector slide which described AT&T's support policy. It read: "No advertising; No support; No bug fixes; Payment in Advance. This slide was always greeted by wild applause and laughter" (59). That response, it would seem, meant that the Unix users were well aware of the unique historical accident that had created Unix. Here was an essential software tool, arguably worth more than the astronomically expensive machines that ran the operating system. It was born in one of the most exclusive think tanks in America, potentially outside of the reach of the government, academia, or the general public. It had been created by a monopoly that had a long record of viciously pursuing profits through the legal protection of patents, as well as the reputation of abusing its power as monopoly with almost any individual who interacted with it. Yet when it came to perhaps its most important innovation, save for the transistor, Bell Labs's hands were tied. It could not sell the product for a profit, it must sell it to everyone who pays, and it could not interfere with it once it was released. In essence, the legal, commercial, and cultural framework that created Unix assured its status as language. Everyone in the user community needed it as a common resource; its widespread use depended upon access and consensus; and the more it was used, the more it was adapted and improved by its users. Thus, the birth of Commons-Based Peer

Production was part genius, part historical accident, part perseverance, and the triumph of the commons.

From Unix to Linux

Unix would expand further, and the history of Unix to its more famous and contemporary descendent, Linux, is the continuation of the CBPP foundation. Berkeley would become one of the primary Unix developers. In the early days of Unix development, Berkely paid its license, got the software, and then went about altering it as it saw fit. Many of Berkeley's alterations were considered valuable, and they were added to the source code by AT&T. In the fall of 1975, Ken Thompson took a sabbatical from Bell labs at Berkeley. Soon after Berkeley began distributing its own version of Unix known as the Berkeley Software Distribution, or BSD, which included a text editor (Weber 31). During the 1980s, the forerunner to the Internet, ARPANET, was looking for a common software base for the computers running on the network; it chose Berkeley's version of Unix, 4.1 BSD, creating a new tension between AT&T and Berkeley. In 1984 the AT&T monopoly was broken up by the federal court system, setting the end to the unique status of Unix as language. AT&T created the Unix Systems Laboratory to market Unix; the price of a Unix license increased to the point where only a few large corporations and almost no universities could afford a copy.

But Berkeley was still giving it away. Recipients of BSD were to pay AT&T for a license to the portion of BSD which was AT&T code. Later, Berkeley separated the portions of BSD which it had developed on its own and attempted to write the AT&T portions of code in a clean room – that is, they would write the code with programmers who had never seen the source code,

but knew what it was supposed to accomplish. By June of 1991 anyone who paid $1,000 to Berkeley could have a copy of what was then called "Networking Release 2." But the BSD license was considerably more generous than AT&T's: recipients of Networking Release 2 were free to do whatever they wanted to the code, including give away free copies, as long as they kept intact the attributions of the individual software authors (Weber 42). Many firms took BSD and marketed it on their own, and in 1992 AT&T, which was in the position of selling a software package for roughly $100,000 which one could get for free elsewhere, sued Berkeley. Ultimately the solution was a settlement wherein Berkeley agreed to redevelop BSD from an earlier release. In 2005, the BSD project has forked several times, but it remains a robust, free, and reliable Unix-like operating system.

At about the same time AT&T entered the software market with gusto, a MIT graduate named Richard Stallman composed the GNU[3] manifesto in reaction to the proprietary environment surrounding Unix (Wayner 33). Stallman was particularly decisive in his views about source code. The document spells out clearly the belief that access to modify and redistribute source code is a fundamental right; barring individuals from doing so is much akin to the idea of barring them from altering language. Furthermore, the GNU project included a new form of licensing. There is much to discuss about the license, but for the purposes of examining the fundamentals of CBPP to develop better writing strategies, it is perhaps easiest to employ the term copyleft. When ideas and expressions are placed in copyright, the copyright owner can exclude others from accessing them. When software is developed under the GNU public license, or copylefted, it becomes permanently non-copyrightable. Furthermore, others are free to take and use code developed under the GNU license, but if even a small portion of the GNU-licensed

[3] GNU stands for GNU's Not Unix, recursive definition and joke. Stallman decided that in order to declare that his new Unix-like operating system was indeed NOT Unix, he would refer to its "non-Unix" status in its very name.

software is included in the project, then the entirety of the code falls under the GNU copyright (which is why detractors consider this arrangement a virus, and not a license).

The next stage became the most famous iteration of Commons-Based Peer Production. On October 5, 1991, a computer science student in Finland named Linus Torvalds posted a message on a Usenet listserv dedicated to a Unix-like operating system named minix (Torvalds). Torvalds had written a new version of the minix kernel on top of many of the tools available from Stallman's Free Software Foundation. Torvalds invited anyone who was interested to take the code and do with it what they wished: "This is a program for hackers by a hacker. I've enjouyed [*sic*] doing it, and somebody might enjoy looking at it and even modifying it for their own needs" (Torvalds). Interest in the project grew and soon Torvalds placed it in the under the GNU copyleft license, or GPL. This meant that whenever someone added code to the Linux project, it was forever attached to Linux, and could not be sold. Not too much later, other programmers added a graphical user interface and Linux took off, with copies spreading worldwide as the functionality of the Web increased. By 2000, Linux was the most popular non-proprietary operating system in the world, with multiple distributions freely available. Linux serves as the single largest and most influential Commons-Based Peer Production project.

It is difficult to underestimate the role of Linux in defining CBPP. Before Linux, no one had conceived of a massive and intricate project for software that would be conducted almost entirely over a distributed network. Once Linux took shape, however, it has allowed – if not required – us to re-assess what is possible within information technology and electronic writing. Projects like Linux paved the way for more traditionally prose-bound CBPP projects such as Wikipedia, which in turn fulfilled the promise of CBPP for non-technical, but informational,

projects. Now that CBPP has filtered down even further to the level of social networks such as MySpace and facebook, it is only a challenge to the imagination to envision what area of writing they will affect next. But since the scope of this project is specifically to formulate rules for how to engage CBPP in the writing classroom, Chapter 3 of this dissertation will look specifically at composition and rhetoric theory to envision how where a useful CBPP praxis will best fit.

CHAPTER THREE

PLACING CBPP IN THE WRITING CLASSROOM

The purpose of this chapter is to shift a focus in the economic theory and historical development of Commons-Based Peer Production (CBPP) which is explained in Chapters 1 and 2, to examining how composition and rhetoric theory is prepared to accommodate the arrival of CBPP. As such, this chapter will present a gradual tapering off from economic and rhetorical theory to composition practice. First we will look at the theoretical concepts from Chapters 1 and 2, finding a place for them within existing composition and rhetoric theory, answering questions of how writing theory addresses the challenges of transactional writing, of commodity fetishism, and of collaborative authorship. Then we will address how well existing theory anticipates the needs of CBPP in the writing classroom. Next, we will look at how the writing classroom changes with the addition of CBPP; if there are gaps in existing writing theory, this chapter will attempt to identify them. Lastly, this chapter will address what type of theoretical guidance will be needed to inform the practice of teaching writing in the CBPP classroom, based on matching the practical needs of the classroom with all existing CBPP theory as this dissertation has established it – economic, electronic, composition, and rhetorical theory combined.

From Transactional Economics to Transactional Rhetorics

In our earlier discussion, much of the focus on the economics of CBPP rested upon transaction theory. Transaction theory plays a fundamental role in examining the economics of the market model of production, the firm model, and CBPP. In economic theory, transaction costs are the price any economic entity (individual, firm, or otherwise) incurs for getting a product to market. For Ronald Coase, lowered transaction costs were the key reason why firms existed: he demonstrated that firms would exist for as long as they were able to offer individuals lower transaction costs than when they worked on their own. But when individuals could sell their goods to market more cheaply, then they would do so directly, bypassing firms, which would cease to exist. Similarly, Benkler's main insight is that under certain conditions (granular work, modular work, low costs of fixation, low costs of transmission, an environment of public information, and successful low-cost integration) CBPP offers lower transactional costs than either the market model or the firm model. Transaction costs for CBPP are lower than in the market model because, as in firm theory, the individual is not responsible for ensuring that the entire product reaches the marketplace – he or she can produce a smaller subset of the entire product. But the firm is inefficient in that it creates a middle layer between the productive individual and the market – management – which undertakes the responsibility of assessing each individual contributor's creative potential and matching it with the market's needs. Benkler's insight is that CBPP allows individuals to self-select projects to work on, and that this choice carries with it an increased efficiency in transaction costs, presuming that the individual is best suited to assess his or her own potential aptitude for successful contribution to a project. In other words, no one can know our creative preferences better than ourselves. But the common

denominator in all three models – market, firm, or CBPP – is that participants choose the model based on the lowest transaction cost.

In terms of writing instruction theory, transaction cost is a different, but certainly related, concept. Writers are interested in reaching an audience with their message and experiencing as little impediment as possible. This is similar to the economic situation described above, which assumes that economic producers wish to reach the market with their product with the lowest possible transaction cost. Therefore, we might look at the transaction cost of rhetoric as the measure of impediments placed on the author attempting to reach an audience. Of course, the difference between economic and rhetorical transaction costs lies in the fact that most (but not all) economic models assume that the producer is manufacturing a material good, whereas the writer's job is to produce text – a entity that has a material component, certainly, but is substantially different enough to complicate the comparison.

In comparing the writing models to the economic models, the introduction suggested that we compare the market model to the professional writer and the firm model to the writing classroom. The market model is similar to the professional writer in that the writer engages the professional audience, or the market, successfully on his or her own, responding the audience's signals in reaction to the text. The classroom model mimics the market model of teaching writing in that teachers of writing assume the role of firm manager, based on their skills as professional writers, coaching writers on how best to reach their market, or audience. Comparing the classroom model of teaching writing to the firm model of economic production reveals two principal weaknesses in current composition theory.

The first structural limitation of the firm-as-classroom model is that the instructor must undertake the impossible task of responding to students' work as if he or she were the market, or

professional audience, and provide a reaction as he or she imagines the audience would. As a pedagogical model, the firm-as-classroom is fraught with a number of faulty assumptions. It assumes that the audience would, in fact, read the students' work, presuming that the writer has sufficiently captured the reader's attention through any number of rhetorical measures. When the instructor plays audience, he or she mimics the manager in the firm model of economic production because both roles require an individual to interpret the signals of the market and then make decisions based upon that feedback. The manager, however, as compared to the writing instructor, has an infinitely simpler task, as he or she engages a real market, which, should it choose to ignore the firm's product, delivers a clear signal to the firm in the form of lowered prices, indicating that the firm's output is not valued and that it needs to find alternative means to impact the market. While such news might be distressing to management, it is ultimately superior feedback to what the writing teacher can create, since the failure to purchase a product is more or less immediate, measurable, and authoritative. On the other hand, if the writing teacher misjudges the effectiveness of the student's potential to reach an audience, then the student carries inaccurate feedback about his or her writing practices on to the next level of education. In either case, focusing on this transactional element of both the economic model and the composition instruction model reveals the problem for the composition teacher of imagining and constructing audience reaction.

Comparing the writing teacher's job to the firm manager's job reveals a second limitation to the pedagogical assumptions of the writing classroom. Not only must the instructor create a hypothetical reaction representing all professional audience readers, but he or she must then interpret those imagined reactions in a pedagogical manner to assist the student's development as a writer. It is impossible to separate these two roles. The writing teacher is always "interpreting"

his or her own reading, no matter how objective he or she wishes to be. These reactions take the form of assessment, and even if they are predicated on principles of good writing instruction that have been clearly stated in the classroom, instructor reactions are clearly limited and homogenous compared to the range of reactions a large audience might produce. The writing instructor is faced with not only the same problems of the firm manager, but doubly so, since the instructor has the responsibility of both imagining and then interpreting the audience's signals. But the instructor must also formulate the writers' assignments, which are premised on judgments about what that imagined audience would desire to read. Likewise, the writing instructor often selects writing topics for students, rather than allowing them to self-select based on the assessment of their own skills and interest as well as a sense of what an audience would value. In this classroom model, students are limited by the instructor's imagination, not their own.

Applying the firm model to the classroom model suggests then that the writing instructor is caught in a double-bind of transactional inefficiency by situating his or her self between writers and their audience: he or she cannot hope to supply the authentic voice of a diverse, varied, professional audience, just as he or she cannot examine the student-writer's individual consciousness to determine which writing project would best suit his or her individual development. In terms of transaction theory, then, comparing the composition instructor to the firm manager reveals that we are raising transaction costs by asking the writing instructor to both gauge and select the most apt writing assignment for the student and then also conjure the audience's reaction to that text. Given that access to a wide readership is available to student writers through the Internet, our current pedagogical model simply asks the writing teacher to do more than what is either necessary or possible. It is no longer necessary for the writing teacher to

act as a proxy for a diverse professional audience, for one exists by if we are simply willing to harness the power of CBPP and accommodate networked writing projects in the writing classroom. In terms of transactional theory, both economic and rhetorical, we can now say that a focus on transaction costs for the writer reveals structural inefficiencies in the current classroom model that limit writers' connections with audience and writers' possibilities in terms of invention.

CBPP provides the synthesis for appending the market and firm models of writing. In the CBPP model, writers are trained to maximize their creativity and productivity in constructing responses to the varied demands the professional audience, as both delivered and received over a network. Similarly, the instructor is relieved of the necessity to assess students' interests and aptitudes for their topic selection, placing that job in the hands of those best-situated to address it and thereby improving the writers' invention process. Instructors are freed to counsel students as they devise and publish writing projects, applying their knowledge of critical thinking skills to the demands of professional standards. It has long been recognized that grammar is taught most effectively and learned in the context of genuine writing applications; writers are much more interested in learning about the rules behind pronoun-antecedent agreement when a problem with that particular rule of standard English has hindered their communication with an audience (cf. Hartwell, O'Hare). CBPP allows for the expansion of that composition truth outward from the real-world application of grammatical rules to the entire sweep of rhetorical concerns. CBPP supplies an audience-specific context for topic selection, material development, presentation, and reader response, improving the development of each by reducing the writers' transaction costs and, in effect, their proximity to an audience.

Situating CBPP Theory: Post-Process, Post-Electronic, but Epistemological

For some, using traditional rhetorical concerns such as "audience" to explain the impact of CBPP in the composition classroom will seem a bit odd. Contemporary theory in electronic rhetoric is most often associated with the fragmentary nature of postmodernism, or theories that generally undercut more traditional approaches in an attempt to rewrite the contemporary rhetorical framework. These more contemporary approaches are typified by astute theorists such as Lester Faigley in his work *Fragments of Rationality* (1992), or Jay David Bolter in his book *Writing Space: Computers, Hypertext, and the Remediation of Print* 2 ed. (2001). While these works seek to break away from much of established rhetoric by introducing the new concerns of postmodernity, a brief consideration of their main concepts will show that even as they resist the frame of traditional rhetoric in describing the current postmodern writing reality, historically embedded concepts such as author, audience, and text are often unintentionally re-validated through the introduction of a new conceptual framework that, in turn, depends on an existing framework to establish itself through contrast. Further complicating matters is the recent emergence of post-process theory, a specific reaction to the process teaching paradigm that has dominated composition pedagogy for almost twenty years. Yet as we will see, it too, as its very name implies, must also lean heavily on existing rhetorical principles to separate the "post" from "process." As this chapter will show, the most effective way to break away from the established rhetorical metaphors of understanding and find the most apt theoretical guide for CBPP in the composition classroom comes from James Berlin's epistemological approach composition theory, which views rhetorical theory not in terms of historical succession, but instead organizes approaches around their self-professed practices of knowledge creation. This does not mean that in order to properly evaluate and situate CBPP in the writing classroom, we will need to break

away completely from any of these theoretical approaches; as we will see below, we will need existing theorizations of the writer's relationship with the audience from established composition writers such as Ede, Lunsford, and Elbow to better understand the composing realities of working in a CBPP network. Instead, we can follow transaction economics naturally to transaction rhetoric; the epistemological reorganization of composition theory, suggested by the observed composition behaviors within the CBPP classroom, presents a compelling lens for evaluating and integrating established concepts such as audience, author, and text, rather than demanding a new world without them.

Works that have attempted to embrace postmodernity and evaluate its effect upon the electronic composition environment include Lester Faigley's *Fragments of Rationality* and Jay David Bolter's *Writing Space*. Faigley's work begins by grappling directly with postmodernism as a comprehensive phenomenon and then attempts to assess its import for composition studies. Faigley posits that the key generalization to take from the many postmodern currents in culture, art, philosophy, and theory is "that there is nothing outside contingent discourses to which a discourse of values can be grounded – no eternal truths, no universal human experience, no universal human rights, no overriding narrative of human progress" (8). Further, Faigley adds that "what a person does, thinks, says, and writes cannot be interpreted unambiguously because any human action does not rise out of a unified consciousness but rather from a momentary identity that is always multiple and in some respects incoherent. If consciousness is not present to one's own self, then it cannot be made transparent to another" (9). This last thought is particularly disconcerting for the compositionist: it might be possible to surrender to many of the cultural effects and literary suppositions of postmodernism that Faigley outlines, but when he draws postmodernism directly down onto the business of writing specifically, chaos threatens.

Most of Faigley's emphasis in assessing the importance of postmodernism falls on the loss of the sense of self. Over and over again his overview of the impact of postmodernism mentions the decomposition of the subject, and loss of the coherent self.

The loss of a definable subject is also Faigley's emphasis in explaining how postmodernism affects the teaching of writing. He writes that

> Where composition studies has proven least receptive to postmodern theory is in surrendering its belief in the writer as an autonomous self, even at a time when extensive group collaboration is practiced in many writing classrooms. Since the beginning of composition teaching in the late nineteenth century, college writing teachers have been heavily invested in the stability of the self and the attendant beliefs that writing can be a means of self-discovery and intellectual self-realization. (15)

Thus, Faigley envisions current composition pedagogy as being at odds with postmodernism. The attendant loss of self should, it would seem, trigger an entirely new approach for the teaching of writing, one that reacts to the demands of "stitching together" a sense of self from a series of disconnected bits. Faigley implies is that informed responses to the realities of teaching writing in the postmodern age are inconsistent with much of current teaching theory and practice, and holds out expressivist practices as particularly vulnerable. How can we teach the traditional essay as a search for the fullest expression of one's inner voice if we fully accept that there is no longer any such thing as an autonomous subject to utter that voice?

In many ways, CBPP would then seem to represent the fullest, most troubling manifestation of Faigley's postmodern reality. In the CBPP environment, all readers are also authors. In many CBPP projects, contributors write collaboratively, and thus there is no

discernable voice of the subject and no autonomous self. And all of the utterances are clearly fixed in time, with the possibility that any and all utterances might disappear at any moment. But, as Chapter 4 will show, traditional composition practices – even those based in expressivism – are necessary to effectively navigate the postmodern composition spaces of CBPP. In order to successfully write in a wiki, students need the ability to pre-write in a traditional environment, to journal and gather ideas in a format where only the author, or perhaps the author and the writing teacher, are the only readers. This writing phase is usually followed by a contribution to the CBPP space, which is immediately followed by meta-discourse addressed to the audience about the merits of CBPP contribution. And, in order to draw the fullest value from the CBPP writing experience, it is optimal to ask student writers to re-integrate the "bits and pieces" they contributed to the CBPP environment into a narrative whole, complete with reflection about the instructional value of the CBPP experience. This most often takes the form of the electronic portfolio. Thus, in practice, CBPP – a most postmodern and electronic space where all of Faigley's characterizations of disconnected self and loss of rhetorical roles applies perhaps even more fully that he would have predicted in 1992 – relies on a sandwich of "modernist" writing techniques to surround the postmodern CBPP experience and to deliver its fullest meaning. Thus, while Faigley's characterization of the challenges of teaching writing in the face of postmodern theory are beyond question, the mistake lies in assuming that teaching in the networked environment assumes a reflexively postmodern approach. In contrast, successfully teaching writing in the CBPP environment links us even more strongly to the history of rhetoric and calls for an imaginative application of traditional rhetorical concepts in the classroom.

Bolter's work leads to similar conclusions, though his focus has followed a much more inductive approach. Unlike Faigley, who begins by looking at the comprehensive effect of

postmodernism and then drawing specific inferences about composition theory, Bolter is most famous for his close reading of the experience of electronic reading, which draws upward to larger conclusions. As expressed in *Writing Space*, Bolter's main idea to track how the physical context for the presentation of text controls the possible interpretation of text. Print texts determine the organization of knowledge, while electronic texts allow or even compel the reader to construct meaning by making associative claims for the text. Bolter writes that:

> Hypertext in all its electronic forms – the World Wide Web as well as the many stand alone systems – is the remediation of print. [. . .] Where printed genres are linear or hierarchical, hypertext is multiple and associative. Where a printed text is static, a hypertext responds to the reader's touch. The reader can move through a hypertext document in variety of reading orders. Whether multilinearity and interactivity really do render hypertext better than print is a cultural determination. The question becomes: better in what sense, for whose purposes, and, as various contemporary critics would immediately ask, for whose economic benefit? (42)

Bolter continues to position electronic text and print text as "rivals." Though Bolter's analysis is far too comprehensive and nuanced to sustain this implied binary, the act of contrasting the electronic writing environment to the print writing environment is continued here. Such a lens, like Faigley's postmodern crisis, implies that teachers of writing who employ an electronic writing environment such as CBPP are forced to choose an attendant electronic rhetoric. Again, such a choice is a false. There is no reason why working in electronic environments should require writing teachers to reject or minimize familiar and established rhetorical concepts. As the experience of CBPP writing in Chapter 4 will demonstrate, CBPP links us strongly to the history

of rhetoric and composition and makes it possible to work with those ideas in a new medium and classroom situation.

Both Faigley's postmodern analysis and Bolter's new media approach would seem to force teachers of CBPP to choose between an older, established rhetoric of familiar authors, texts, and audiences, and a newer electronic rhetoric where these concepts are, if not abandoned, at least outdated. This study will do nothing to refute the idea that CBPP, as a new electronic phenomenon, will demand flexibility and novel adaptations in order to employ it effectively in the composition classroom. Yet the fundamental truths of written communication do not change because the communication environment has changed. As the next section will show, James Berlin's classification of rhetorical theory along the lines of how they produce knowledge, rather than their order of development, separates the theories of transactional rhetoric from a chronological ordering. These theories occur in both postmodern and earlier periods. Yet by grouping the theories in terms of their common epistemological approaches, the connection between transactional economics and transactional rhetoric becomes apparent.

Berlin's Epistemological Classification of Rhetoric

There are several underlying presumptions in this proposed model of the CBPP classroom. The primary belief is that the role of the writing teacher is to prepare the student writer to interact with a diverse, public, and professional audience who share knowledge and expertise about a given topic. The highest form of that interaction would be student writing that demonstrates critical thinking, subject knowlege, professional ethos, context-appropriate appeals, and a fluency of form and convention. By removing the writing teacher from the role of conjuring and interpreting the reaction of that professional audience, the CBPP classroom represents not only a

shift away from current pedagogical norms, but also an implicit move further away from objective and subjective rhetorical theories toward transactional theory, as classified by James Berlin and described below.

CBPP exists because it improves upon the efficiency of transaction costs both the market model and the firm model of economics; this truth also supports the use of transactional rhetorical theory in the writing classroom. As we have seen, the economic definition of transaction theory is dedicated to reducing the costs encountered by the seller to reach a buyer. Rhetorical transaction theory has a different, but related meaning. Writer James A. Berlin identifies this connection when he offers a taxonomy of composition theory in his work *Rhetoric and Reality: Writing Instruction in American Colleges, 1900-1985*. Berlin's approach is philosophical, or, more accurately, epistemological. He groups composition theories around the broad concept of truth – how each approach assumes truth is positioned, and how writers reveal it. Thus he offers three clearly defined categories for the various approaches to teaching writing, which span the entire sweep of composition history, and regroups writers according to their approaches rather than their historical period. Berlin writes: "I have [. . .] three epistemological categories: the objective, the subjective, and the transactional. Objective theories locate reality in the external world, in the material objects of experience. Subjective theories place truth within the subject, to be discovered through an act of internal apprehension. And transactional theories locate reality at the point of interaction of subject and object, with audience and language as mediating agencies" (6).

Both objective and subjective theories support the role of the writing teacher as the sole interpreter of the audience: subjective theories implicitly support it because they assume that truth lies within interpretation, and as such there is no improving upon positioning the most

experienced writer in the classroom – the writing instructor – as the sole interpreter of the value of student writing and the sole conjurer of audience response. Objective theories also privilege the position of writing teacher as proxy for the audience since they assume that truth is to be verified through the exercise of writing that can be demonstrated to be "good" according to the application of a particular set of writing practices. No one in the objectively theorized writing classroom but the writing teacher, not even the audience for which the writing is intended (unless the teacher and the intended audience are one in the same) can equal the authority of the writing teacher's judgment of good writing. Therefore, both objective and subjective theories of composition seek connection with a genuine audience beyond the instructor with no particular urgency. Conversely, transactional theory is a writing approach which is vested in audience connection as a composition strategy.

Embracing CBPP does not mean, however, that we need to abandon all aspects of composition theory which would fall under either the objective or subjective theory umbrellas. In fact, as we will see later in this chapter and in Chapter 4, the classroom pedagogy adopted by this study for employing CBPP borrows heavily from subjective, expressivist theorists Peter Elbow and Donald Murray to both theorize how the arrival of CBPP reformulates the concept of audience for writers and to develop practical writing strategies for assimilating the writers' internal truths, as expressed through their text, into the CBPP environment. Similarly, this same pedagogy contains aspects of objective, current-traditional rhetoric when it asks student writers to survey writing in the CBPP and assess its needs by measuring how the writing does or does not live up to a singular notion of truth. When writers are asked in an exercise in Chapter 4 to read multiple Wikipedia film pages, establish the criteria for "best" film page, and then measure those pages according to this yardstick, they are fulfilling the design of objective theorists by

practicing a positivistic approach that locates reality in the material world – i.e., there is an ideal film page, we can articulate the ideal film page, we can measure the existing film page against the ideal, and we can make changes to the existing page and move it closer to the ideal.

Thus, while the importation of CBPP into the writing classroom revitalizes transactional rhetoric, it does not render all teaching approaches based on subjective and objective theories valueless. Importing CBPP into the writing classroom instead reveals the extent to which subjective and objective theories have thus far been privileged as dominant teaching paradigms, over-investing the role and function of the students' audience in the writing teacher. As CBPP economic theory makes clear, we no longer need to rely on either a solitary connection or a firm-based connection to the marketplace to be productive. In the classroom, however, there had never been a viable market model of composition; instead, the firm model of teaching has been the only practical model. Now that CBPP clearly identifies that student writers have alternative paths to an audience and that the teacher need not attempt to always approximate a professional audience, it is possible to see that are other routes to an authentic audience that simply were not possible in the past. These new, networked approaches clearly favor transactional rhetoric, as will be explored below.

In economic terms, transaction theory functions because it always focuses on the connection between buyer and seller, rather than on either party directly. Similarly, rhetorical transaction theory locates its focus between speaker and audience instead of with either party. A rhetorical theory based on a strict interpretation of the economic transaction costs would focus upon reducing the distance, or costs, between writer and audience. As Berlin makes clear, transactional theories of rhetoric imply an awareness of multiple parties at all times as it locates truth between those parties rather than with any particular party. This perspective offers an apt fit

for CBPP because its underlying structural network assumptions mimic the same structural assumptions of transactional rhetorical theories: CBPP is direct result of network structure, and transactional rhetoric assumes a communication network. By situating truth between communicating parties, transactional rhetorical theory assumes the equal importance of each communicator. Similarly, CBPP assumes a network structure, with communication between equal nodes creating content through the act of transmission.

Transactional Rhetoric, Linux, and Topic in the Composition Classroom

Transaction cost theory of economics is dedicated to reducing the cost, or access, of the individual to the marketplace. Similarly, application of CBPP in the writing classroom reduces the cost of accessing an audience for student writers, or, in more practical terms, thrusts them into the sphere of electronic public discourse. It is possible to develop a composition approach that both anticipates the needs of student writers in the CBPP arena and furthers that discourse to the greater benefit of all CBPP participants, not just students. This practical approach, however, must be rooted in a thorough understanding of the fundamental rhetorical principles at work within CBPP. To that end, we have so far examined Berlin's supra-classification of rhetorical theory known as transactional rhetoric. The concept of transactional rhetoric fits CBPP well because of the fundamental assumption of discourse between multiple parties seeking truth is similar to the equal node structure of a CBPP network. Now we should consider more closely the three categories of transactional rhetoric for even more accurate support of teaching writing with CBPP.

Berlin's three categories for transactional rhetoric are classical, cognitive, and epistemic. These three transactional rhetorics are united epistemologically around the idea that truth is

located not within ourselves (as held by subjective rhetoric), nor within external objects (as held by objective rhetoric), but rather through transaction between the subject and object. But each of the three transactional theories offers a variant on this common approach. In describing the contemporary application of classical rhetoric, Berlin notes that "the distinguishing feature of the version of classical rhetoric that appeared during the sixties and seventies was its commitment to rationality" (155). Berlin notes that the main appeal of classical rhetoric, as applied through works like Edward P.J. Corbett and Robert J. Connors's *Classical Rhetoric for the Modern Student*, is its coherent and comprehensive approach to each stage of the writing process, as well as its ability to emphasize emotional, ethical, and logical appeals (157). Thus, while classical rhetoric provides structural terms -- such as author, text, and audience -- for analyzing CBPP in the composition classroom, its classical framework does not go beyond providing the basic tool set for analyzing the impact of writing for a massive electronic network. In essence, classical rhetoric gives us the concepts for understanding what transpires on the network, even if it does not envision the network itself.

Alternatively, Berlin characterizes cognitive rhetoric as "distinguished by its assertion that the mind is composed of a set of structures that develop in a chronological sequence. [. . .] In attempting to understand the nature of writing, it is necessary to know the nature of these structures, how they unfold in time, and how they are involved in the composing process" (159). But this focus on the interior cognitive functions of the individual can lead one to assume that cognitive rhetoric is more like subjective rhetoric, rather than a true transactional theory. Berlin, however, anticipates this objection and offers the following clarification:

> Although the rhetoric of cognitive psychology focuses on the psychology of the individual, it is indeed a transactional approach. [. . . W]riting also involves a

> transaction among the elements of the rhetorical context. The structures of the mind are such that they correspond to the structures of reality, the structures of the minds of the audience, and the structures of language. Learning to write requires the cultivation of the appropriate cognitive structures so that the structures of reality, the audience, and the language can be understood. (159)

Thus, before we can usefully employ cognitive rhetoric to understand CBPP in the writing classroom, more research will need to be conducted to more fully understand how networked writing affects the cognitive interplay between the structures of the authors' minds, the structures of the audiences' minds, and structures of the networks. Cognitive rhetoric is most famously associated with the experiments conducted by Linda S. Flower and John R. Hayes in "A Cognitive Process Theory of Writing." In these famous experiments, Flower and Hayes asked writers to think out loud as they engaged in different writing tasks, including pre-writing and composing. While this one experiment in no way defines the entire field of cognitive rhetoric, it does reveal the key fact that in order to draw inferences about the structure of the authors' minds, the structure of language, and the structure or the audiences' minds, it is essential to design an experiment with representative protocol in place. Thus, for cognitive rhetoric to contribute to our understanding of how to teach writing with CBPP, it will need to experiment with CBPP networks explicitly. It is encouraging that some of this type of exciting research is currently underway in the newly emerging interdisciplinary field of "distributed cognition" (Paré). But at the moment, there is very little research in the field of cognitive rhetoric that advises how to teach writing using a CBPP network.

Epistemic rhetoric, however, is most readily adapted to inform teaching writing with a CBPP system. Later in this chapter we will examine how classical rhetoric informs the use of

CBPP in the writing classroom, by looking more closely at how classical rhetoric's mode of invention is affected by the new demands of topic selection opened up by CBPP, or the hacker ethic of laziness, as well as how the emphasis on reduced transaction costs in economic theory portend a new emphasis on the writer's connection with audience. But from the outset we will look more closely at how epistemic rhetoric informs the employment of CBPP in the writing classroom.

In defining epistemic rhetoric, Berlin writes: "Rhetoric exists not merely so that truth may be communicated: rhetoric exists so that truth may be discovered. The epistemic position implies that knowledge is not discovered by reason alone, that cognitive and affective processes are not separate, that intersubjectivity is the condition of all knowledge, and that the contact of minds affects knowledge" (165). The importance of this position in understanding CBPP cannot be underestimated. If the discovery of knowledge is affected by the number of minds that come into contact with it, then there first must be multiple minds to contribute to the conversation. Knowledge is thus a product of a conversation between parties. The more parties in that conversation, the greater the potential. Therefore the fundamental premise of epistemic rhetoric is that an effective knowledge-making strategy needs multiple participants. Composition pedagogy that is structurally designed to maximize multiple conversations among multiple participants offers the surest approach for writers to discover and contribute to new knowledge. Wikis such as Wikipedia, which present knowledge collaboratively, offer the most obvious example of an epistemic network. However, the most accomplished example of an epistemic network is Linux as a detailed analysis shows.

Firstly, the project begins when one individual, Linus Torvalds, takes a computer coding project (Minix)which he has been developing on his own and solicits help from other people. He

does this by starting a public conversation in an electronic arena: specifically, he posts a message on a Minix listserv (Torvalds). Other participants on this listserv have self-identified as being interested in the Minix topic, and thus he has a ready discourse community. This Minix project, which would become known as Linux, qualifies as CBPP since it meets all of Benkler's criteria (indeed, it is the progenitor of that category): it has granular work, meaning that Linus Torvalds welcomes both large and small code contributions to project, and the work is modular, which means that no contributors need necessarily wait for other contributors to complete their work before submitting their own. This project also has low costs of fixation, which means that publication costs are simply the cost of typing on a computer. The Minix project would have low costs of transmission, too, since it would involve sending code over an Internet connection. There would be an environment of public information, since all discourse participants would have access to the same code, and no one member would enjoy any advantage by holding back code from any other member – in fact, there would be a distinct disadvantage of doing do, since that would impede verification of the submission's usefulness. The last category of CBPP, successful low-cost integration, is the one upon which all success or failure turns. Many projects or discourses can meet all of the above requirements, but cannot achieve low cost integration.

The Linux CBPP project, which had its roots in this Minix story, owes much of its success to its ability – intended or not – to implement the fundamentals of epistemic rhetoric. In the Linux CBPP project, the work product is rhetorically situated between multiple parties. To make a direct analogy to the rhetorical epistemic network, it is not too much to suggest that indeed truth itself is situated as a rhetorical object between multiple participants. Now consider that for the Linux project "truth" is defined quite narrowly: one can make all kinds of claims on open source discussion boards such as Slashdot about the nature of the open source community, but

code contributions for Linux have a great advantage of measuring a contribution's efficacy. The best way to evaluate a "truth claim" in this code-writing community is to test whether or not the code works; discussions about whether or not the code is valuable are, indeed, very interesting and critical to whether or not the project accepts the contribution. But the Linux CBPP community has the advantage of beginning such a discussion by asking the question of whether or not the contribution works, before considering whether or not it is relevant. These qualifiers are essential, because the Linux community is an example of a very robust, energetic, and vast network of epistemic rhetoric: each of the network nodes can contribute to the code, and can weigh in on the value of the code. Whenever there are a great number of nodes in the network, then there is a great demand for integrating the contributions.

What is the most direct path, then, to integrating the multiple contributions of robust epistemic network? A clearly defined purpose for the network, or, a clearly defined topic. The history of the concept of "topic" in rhetoric is rich. It ranges from Aristotle's *topoi*, as an invention aid, to Jay David Bolter's electronic notion of "topographic." Bolter explains that

> A text as network may have no univocal sense. It can remain a multiplicity without the imposition of a principle of domination. In place of hierarchy, we have a writing space that is not only topical; we might even call it topographic. The word "topography" originally meant a written description of a place, such as an ancient geographer might give. Only later did the word come to refer to mapping or charting – that is, to a visual and mathematical rather than verbal description. Electronic writing can be both a visual and verbal description. It is not the writing of a place, but rather writing with places as spatially realized topics. (36)

Bolter's notion of topographic is helpful if we wish to understand how topic works within a CBPP system. "Topic," within CBPP begins with more of the conventional sense – a category for arranging ideas. But when one begins to see topic as the means for judging whether or not CBPP contributions are relevant to the project, then Bolter's more interconnected definition of "topography" is more accurate. CBPP systems rely on a clearly defined topic to assess the relevancy of contributions, and since off-topic contributions would distort the meaning of the overall project, all contributions are reviewed for how they will affect the overall project. Or, in terms of place, how the arrival of new content affects the remaining pages. If a network identifies a clearly defined topic, it is possible to develop any number of measures for integrating contributions, including evaluations of substance, style, format, length, efficacy, and so on. But while the epistemic network assures a great richness since its truth is defined through the interaction between contributing nodes, it is another school of transactional rhetoric which provides the clearest and most practical consideration of how to develop clear measures for the integration of contributions.

The Role of Classical Rhetoric in a CBPP Network

Successful CBPP integration is fed by the structure of classical rhetoric and how it positions truth claims. The Plato and Aristotle debate about the role of rhetoric creates a firm divide between science and art, or what is knowable through independent verification and what is knowable through the senses. In *The Rhetorical Tradition*, Patricia Bizzell and Bruce Herzberg write that "For Plato, false rhetoric is precisely that [which] relies on *kairos* or the situation in order to determine provisional truth or probably knowledge. Plato faults the Sophists for not using rhetoric to try to discover absolute truth" (28). For Aristotle, however, rhetoric plays no

role in absolute truth. But, “that does not mean that rhetoric is useless to Aristotle – far from it. [. . .] Aristotle values rhetoric as an aid to reaching agreement on questions of value or preference that demand immediate action in everyday life” (31). Berlin summarizes the divide this way: “Science and logic are outside the rhetorical realm since both are concerned with the indisputable, with certainties that do not ordinarily lead to disagreement. The truths of rhetoric, on the other hand, are by their very nature uncertain, open to debate, contingent, probable. They deal not just with the empirical or rational analysis of experience, but with the emotional, aesthetic, and ethical – in other words, with the total range of human behavior” (15). For CBPP, this distinction between what truth is verifiable and what truths are contingent is pivotal for evaluating user contributions.

Recall Benkler’s definition of low-cost integration as the ability of the CBPP project, or rhetorical discourse community, to weed out insufficient or off-topic contributions. He writes that “[A] successful peer production enterprise must have low-cost integration, which includes both quality control over the modules and a mechanism for integrating the contributions into the finished product” (379). In the realm of a coding CBPP project such as Linux, that would mean the project would have the ability to verify each piece of code’s functionality, and the ability to integrate multiple contributions into a meaningful whole. When presented by Benkler, this seems to be a clear-cut task – verify that the code works and that the code is needed.

In practice, these are two very challenging and complex tasks, a reality which is clarified by the distinction in ancient rhetoric between the business of science and the business of rhetoric. Distinguishing between computer code that works and code that does not work should be fairly easy: you load it up on a machine and test it. But what if that code does indeed work as the author intended it to do, but accomplishes a function which is not part of the perceived goal of

the overall project? Here again we have the famous distinction between science and rhetoric; testing whether or not the code contribution works is the business of science – a truth claim which is easily verified or discredited. Testing whether or not the code contribution is valuable? This is the business of rhetoric. But the transactional network is structured to handle both types of truth claims. Whether integrating content into the CBPP network is cheap and easy, or nebulous and tedious, the rhetorical principle of defining truth through the conversation between nodes in the network is stable and verifiable.

In fact, the very task of addressing what is and what is not a valuable – as opposed to a valid – contribution in CBPP is the very discussion that should be taking place in academic classrooms, especially in terms of student contributions to established academic disciplines. To defend a challenge from the CBPP system that a particular contribution is not valuable to the project is an inherently rich composition task. It requires that the contributor relate the worth of the contribution to the discourse community in terms of that community's stated goals. In other words, topics play an increased role in the CBPP composition classroom. To avoid a situation in the electronic, epistemic, CBPP, writing network where all truth is relative, student writers need to be focused on the role of topics as defined goals for network projects. In a social network such as MySpace, a student writer might be able to offer unqualified opinions about any number of subjects, but within an open source software development project, contributions would have to be verified to become valuable to the group. In essence, these CBPP topics define the discourse community: the methods within each CBPP community for verifying the accuracy and relevance of contributions is a statement of its ethos, or an epistemic reflection of what it believes to be possible and practical in the act of knowledge community. But this is no different from what we ask student writers to accomplish when we attempt to prepare them to write in different

knowledge communities today through the practices of Writing Across the Curriculum initiatives or various professional documentation standards. The CBPP composition experience thrusts upon the writer the full weight of making meaning for a discourse community and ultimately calls upon writers to employ sound techniques of persuasion to defend their contributions.

But while classical rhetoric's distinction between scientific claims and rhetorical claims is helpful in terms of identifying CBPP contributions, it is less pragmatic in terms of resolving these claims. A CBPP project cannot simply decide whether or not to retain a submission based upon validity. It must make the more relative judgment of how the contribution is, or is not, valuable. This is where fundamentals of epistemic rhetoric offer a much broader perspective. In epistemic rhetoric, knowledge itself is a rhetorical construct. Since epistemic rhetoric assumes that language itself is part of the meaning-making process and that truth is not external to this process, it provides instruction for writers in CBPP who wish to defend the worth of their challenged contributions.

The defense of last resort for a challenged contribution is what is known in the hacking community as "forking." Forking describes what happens when some contributors take the code base and create a new project with different goals. Many open source developers view forking as a group failure, assuming that if the mother project had been able to accommodate the interests of all contributors through compromise, then it would have remained a stronger project. But epistemic rhetoric teaches us that a stable consensus within large discourse communities is simply impossible. If the community itself is defined by diverse participants, then the size of the community is the direct inverse of its chance for consensus. This has certainly been borne out in the history of Linux developments; all of the many Linux distributions, or distros (Fedora, Debian, SuSe, etc.) have been the result of forking, or the rejection of contributions on the

grounds of lack of value, not lack of validity. The relationship back to rhetoric, then, is that while classical rhetoric is valuable in pointing up the distinction between what is a conflict of opinion and what is a conflict of fact, epistemic rhetoric acknowledges that these conflicts are inherent within the system. Thus the perspective of classical rhetoric is useful in terms of defining CBPP conflicts over what constitutes a relevant or accurate contribution. If, however, a contribution is rejected on either grounds, the perspective of epistemic rhetoric means that perhaps the potential CBPP contribution merely has not yet found the correct CBPP project.

Conflict resolution within CBPP systems is a new field of inquiry. Many who have written in Wikipedia, or have had experience contributing to open source software projects, can attest to the truth that as long as one offers content in a CBPP system, it is only a matter of time before that content is questioned. This questioning should be viewed as part of the integration process, however, and is actually a measure of the activity and health of any particular CBPP system. The major difference, however, between transactional rhetoric's approach and the conflict resolution procedures of many existing CBPP projects is the practical need for a project to reach some type of consensus in order to advance the overall state of the project. A rhetorical theory need not predict how discourse participants will behave in terms of coming to consensus; in practice, however, the health and vitality of a discourse community might very well depend on how it resolves disputes. The very qualities of epistemic rhetoric that ensure rich conversation and a tolerance for multiple perspectives also ensure a great divergence among writers and a difficulty in reaching consensus. Ultimately, guidance for dispute resolution in a CBPP project comes from a clearly defined topic for the entire project, for that topic, or purpose, is the ultimate authority for determining which contributions are relevant and which are not. Contributors can refer only to the purpose of the CBPP system to gauge the relevance of any particular contribution.

Epistemic rhetoric makes no such demands on contributions; it just seeks to advance conversation by defining multiple perspectives and assuring that truth remains suspended between those discourse participants.

But in this manner it is possible to view CBPP as a direct extension of epistemic rhetorical theory, moving from simply assuring that truth exists in suspension between multiple discourse participants, to a more finely tuned position of deciding whether a statement is on topic and then, if so, credible. Since rhetorical theory drives composition theory, this is an important distinction: student writers verifying the factual accuracy of statements by other student writers has not normally been part of the composition classroom. With CBPP systems, however, it is essential to consider whether an utterance is on topic and/or credible. If this is a valuable problem from the standpoint of instruction – if we can assume that writers will need the skills of assessing the relevance and accuracy of content within a CBPP system as a rhetorical task – then the experience of writing within a CBPP system is an asset for the composition classroom for yet another reason. Composition classrooms have long employed peer response mechanisms for the purposes of both improving the author's text through the responder's prompts, but also for the purpose of broadening the responder's own work through greater exposure to how other writers in the classroom are responding to writing challenges. But we have rarely, if ever, asked student writers to share the role of evaluating the relevance and accuracy of another's text as basis for inclusion to a CBPP system.

Benkler defines the criteria for submissions within CBPP as "relevance" and "accreditation" (390-96). While giving voice to detractors of CBPP systems, such as those teachers in our epigraphs who broadly label Internet content as "tripe," Benkler writes:

> You might say that many distributed individuals can produce content, but that it is

> gobbledygook. Who in their right mind wants to get answers to legal questions from a fifteen-year-old child who learned the answers watching Court TV? The question then becomes whether relevance and accreditation of initial utterances of information itself can be produced on a peer production model. The answer is that it can. (390-1)

Benkler continues to elucidate several models of successful low cost integration, or examples of Internet sites of collaboration where contributors commingle the roles of contribution and evaluation. One of the most famous of these models is Slashdot.

Slashdot as a Robust Epistemic Network

Slashdot is a large web site, in almost every sense of the term. Ostensibly, the focus of the site is open source software. But in reality, the users are people with a shared interest in open source software and a higher than average interest in Internet technology, culture, theory, and law. Most important, however, is the fact that Slashdot users write a lot, and enthusiasm for expression translates into a site with a great deal of energy. The site model operates with users submitting news stories, usually as seen on other sites, to the editors of Slashdot. If the editors feel that the story is of interest to the readers, then they assign the story a category, write a brief description, and post it on Slashdot with a link to another site. Slashdot readers are then able to write their own comments to the story onto the Slashdot site. Recently, Slashdot's influence has been challenged by a similar site, digg.com, which has the important distinction of having no editorial board – news stories are submitted by users into a pool, and after they accumulate enough votes, or "diggs," they are advanced to the front page. Even more complicated is the recent newsvine.com, which also allows users to vote or "seed stories onto the vine," but also

offers the ability to tag content and post blogs, complete with monetary compensation. However, Slashdot was the first site to make a real breakthrough in terms of assessing content submissions and user submissions for accuracy and relevance to the site.

When a reader posts comments onto Slashdot, those comments are ranked by other readers on a scale from -1 to 5. This process is called "moderation," or "modding" (see the complete Slashdot moderation faq at http://slashdot.org/faq/com-mod.shtml#cm600). Slashdot readers who participate in the discussion board by logging in and posting comments that are themselves modded as valuable, are from time to time offered "points." Each point is in effect the ability to mod another's comment. Points will disappear if not used in a certain amount of time. Further, Slashdot assigns each user a "karma" score, an integer ranging from terrible (-1) to excellent (5). Karma value is intended to reflect how well one participates within the Slashdot discussion, and it is based on how often one posts comments, how valuable those comments are to the community – as determined through the moderation system – and whether or not one contributes story submissions. Karma also determines the initial mod value of one's comments. For instance, if you have a high karma value as a logged-in user, your comments will start with a mod score of 1 or higher, whereas by comparison if you post comments without logging in, or have a poor karma score, your comments will start at zero or lower.

What is to keep readers from abusing their power to score other comments? Why, for instance, would one user not simply mod down unpopular opinions or the comments of posters whom they dislike? Because Slashdot features a meta-moderation system. From time to time valued users are given the ability to review other users' mod of mods, or the ratings assigned to comments. If they find that a user consistently mods too far up or too far down, then they can rank the very rating of another's rating, and that user will be given fewer mod points in the

future. Thus, Slashdot creates a robust peer-review system that composition teachers must envy in terms of its breadth and depth of commenting (it is not uncommon for stories to generate more than 1,000 remarks), its ability to clearly assign value to comments (thereby encouraging submission of even more valuable comments and discouraging off-topic and less valuable comments), its ability to create a quantifiable ethos amongst participants, as well as its ability to encourage even more dialogue. Slashdot offers a model for what CBPP, as applied to the composition classroom, could look like, if enough participation could be created. Slashdot solves the problem of audience contact for the firm model composition classroom: as a robust CBPP network, a Slashdot network reduces transaction costs and facilitates immediate and voluminous audience response to writers' words, rather than asking a writing instructor to conjure those responses. Similarly, the Slashdot model dramatically lowers invention costs – work is granular and largely modular, so writers are free to comment as much or as little as they wish on the topic of their choosing. The digg.com model reduces invention costs further still since it distributes across the network the job of determining which story submissions to publish.

While comment mods are assigned a number to indicate their value, they also feature text descriptions, which give a glimmer of insight into what the Slashdot discourse community finds valuable. Good adjectives are "informative" or "interesting," while negative adjectives include "flame bait," "troll," or "off topic." Flamebaiting refers to the practice of writing incendiary comments from a polemical point of view, with the purpose of luring people into emotional responses of outrage rather than entering into any honest discourse. When a Slashdot commenter is assigned the label of "Troll," he or she is considered to be reprehensible. And "off topic" is self-explanatory. Quantifying the discourse community's opinion about contributions allows readers several options, not the least of which is the ability to browse comments with a set

threshold. Readers might want only to see the comments deemed as the best by the Slashdot readers. If so, that reader can set the comment viewing through to the level of “5” and only view comments that other readers rated as the highest.

From the standpoint of CBPP, then, Slashdot does an admirable job of distributing back to its readers the essential functions of deciding which contributions to the project are on-topic and which are not relevant. In addition to solving the relevance problem, Slashdot has also accomplished much in the way of solving the accreditation problem through the process of ranking not only comments, but also commenters. Thus, on a rhetorical level, Slashdot participants have a quantifiable ethos that demonstrably affects their contributions. Perhaps even more remarkable is the manner in which Slashdot has been able to take a very elusive concept – a perpetually defined value of the contributor in terms of content submitted a CBPP system – and readily apply it to CBPP contributions. Slashdot serves as an excellent example of epistemic rhetoric as applied to a CBPP network: participants in the discourse community perpetually determine which statements are true and accurate – for them – by perpetually discussing them. The text, and its truth, are always external to the participants, and always in the process of being determined through the input of discourse.

The fact that truth is continually defined reminds us that Slashdot is an epistemic network; but it is a transactional network as well. Transaction costs, or the impediments of the writer to reach an audience, must first be reduced before the Slashdot model works. In evaluating transaction costs within the Slashdot board, however, it is worth considering that the article that triggers responses is almost never written by any of the contributors. It is almost always written by an outsider. Therefore, even though there has never been any lack of outspokenness on the board, the author is not part of the discussion, and the text of the Slashdot discourse network,

rather than being an extension of an original submission, consists of the comments of the thousands of Slashdot users. Therefore if the potential for negative reaction of the author to comments perhaps raises transaction costs by discouraging comments, such as it often does in composition classrooms when peer reviewers express anxiety about offending another student writer, the Slashdot model reduces that potential by focusing comments on a third-party article. As these comments become the text of the epistemic network, they are perfectly conditioned as CBPP particles: Slashdot comments are modular (they are almost always non-sequential as they all follow the initial article; they are granular (some of the most popular remarks are pithy one-liners); contributions exist within a network where all knowledge is assumed to be public (even though conspiracy theorists thrive within Slashdot); and, as we have outlined above, Slashdot has achieved a low-cost system of integration, assigning accuracy and relevance to all contributions.

Slashdot's low transaction costs and robust peer response interactions invite us to interrogate the nature of utterances as transaction in their fullest sense, both economically and rhetorically. No cash changes hands within Slashdot. Yet writers are compensated for their contributions. The currency of Slashdot is measurable in terms of both increased speaker ethos and speaker volume; that is to say, the transactions in Slashdot perpetuate the rhetorical values of the discourse community. As we have already reviewed in the examination of Slashdot's modding system, if you contribute often to the discussion, then you are "paid" with a quantifiable ethos (your comments begin with a more valuable score), and you have the ability to score other's remarks. Further, since your remarks are scored more highly, then you exercise increased volume, for more readers are likely to hear your comments – if readers set their comment viewing threshold higher, then the more readers the highly-rated comments are likely to reach.

Thus, while Slashdot remains an inherently epistemic network with lowered transaction costs, it pushes us to think of how it furthers the concept of a transaction within strictly rhetorical terms. Earlier we observed that in a rhetorical sense, transaction costs were the impediments that a speaker overcame in order to reach his or her audience. The Slashdot model extends this concept of communication with the audience as a transaction by allowing the network to compensate the speaker, if his or her message is both valuable and on-topic to the network, with greater rhetorical stature. Thus, the CBPP network can establish rhetorical credibility as a currency: when a Slashdot contributor adds valuable content, then he or she is compensated with greater credibility and volume. Similarly, if the speaker's utterances are not as valuable to the network as a whole, then that speaker suffers lower credibility through the form of higher initial mods and fewer mod points. Thus, speakers whose content is consistently valued find that their transaction costs are lowered over time, whereas speakers who are off-topic or offer less insight are further distanced from their audience.

A great flexibility for this particular system is that the standard of truth is constantly in play. Since the comment-modding process seeks the opinion of a great number of readers dispersed over a vast network, there is a bedrock of consistency in the reaction to utterances. Ultimately, however, the judgment of what constitutes truth in this epistemic network is left up to opinion, and even though it is a nearly instantaneous opinion of a large majority, it is still susceptible to the swings and fallacies of popular opinion. It is important to note, however, that once opinion is as broadly dispersed and as instantaneous as a CBPP network can make it, it takes on perhaps some more durable qualities associated with polling. But in the end, the mod system on Slashdot asks readers to rank opinion. This is qualitatively different from the CBPP network of science, where readers and network participants are asked to attempt to duplicate the

speaker's truth to either solidify or refute claims. Also, the nature of the Slashdot model prevents it from claiming fact, or verifiable truth and thus steers it away from the science and art bifurcation of Aristotelian rhetoric. Thus the flexibility of truth claims within an epistemic network such as Slashdot has both strengths and limitations.

If the Slashdot network fulfills all the requirements of CBPP and is an epistemic network demonstrating low transaction costs, can it stand as a prototype for importing CBPP into the composition classroom? Certainly the question invites a more thorough consideration of transactional behaviors within this particular epistemic network. Any attempt to use the Slashdot model in the composition classroom would have to acknowledge at least four essential limitations: scale, contributions, moderation, and currency. The Slashdot epistemic network needs a particular critical mass in order to ensure its dynamic richness. While acquiring software is not a problem (slashcode, and many more appropriate substitutes, are all open source), building an environment that would assure that postings were read and commented upon is a much more difficult problem: a comment that reaches a "5 – informative" level in a network of twenty-five first-year composition users is a substantially different judgment than a network of more than 100,000 users. Additionally, composition classrooms need to promote students' writing, and the Slashdot model is built around discoursing in reaction to another's writing. Clearly, the Slashdot process could be adopted to posting an assigned class reading and asking student writers to comment on that reading, and allowing them to mod each other's comments. Modding presents the greater challenge, but it is the heart of the network. Student writers would need a robust network, crossing boundaries of classroom and institution, to ensure honest reactions from students to each other's comments, free of quid pro quo. Establishing an epistemic Slashdot type of network that transcended institutions would solve the problems of

size, insuring that enough student writers could participate to generate substantial comments, as well as reducing the chance of establishing a payback system for commentaries. Yet it is the very risk of inappropriate payment by writers for positive comments on their text that reveals perhaps the most important concern to examine in importing a Slashdot epistemic network into the classroom: currency. How are writers rewarded for good writing?

Currency

The currency of the college composition classroom is the grade earned by the student for acquiring and demonstrating composition skills. There is no disputing this truth, nor is there any simple method to harness its impact for pedagogical objectives. Any attempt to import CBPP into the writing classroom must first acknowledge how the current firm model of composition encourages certain behaviors while discouraging others through the currency of course grades. Just like the firm manager, the composition instructor rewards those who produce results that, as has been discussed in Chapter 1, the instructor deems as writing that a market would find valuable. The most immediate problem facing any teacher who would seek to import a CBPP network is how to integrate that network into the existing reward structure.

Further complicating the currency problem is the fact that much CBPP work also dissolves the traditional roles of author and reader, asking students to work in collaboration with either other writing students, or people in the CBPP network who are not enrolled in the class, or both. Clearly, the instructor has no control over other actors in the CBPP network. These challenges are perhaps best illustrated by writing assignments on Wikipedia, the largest and most robust epistemic network, as will be demonstrated in Chapter 4. If the composition instructor asks for students to write for a Wikipedia page, how should we assess that work? The student has no

authorial control over his or her work: anyone is free to delete the work, or, as is more challenging for the instructor, modify the sentence word for word. It is possible for the writing instructor to track exactly what the student contributed, but with current technology it is quite a forensic exercise to ascertain the value of the text one student wrote, and further to evaluate how that text added value to the overall project. In the current firm composition model, all writing is the sole property of the individual student, submitted to the instructor as his or her own creation. Though that model has numerous flaws, it excels in offering clarity for a reward structure. It is simple to determine who wrote what and who receives what grade for it. Indeed, as will be discussed later, the sole authorship model stands as a major obstacle for the adoption of CBPP for the composition teachers themselves – the discipline of English has clung to the sole authorship model for years in spite of the developments of electronic media, the success of the science model of joint authorship attribution, critical theory itself, and the attendant reduction individual authorship. A response for the currency problem in the composition classroom, however, is fairly straightforward when compared to the entrenched interests that deter change in the professional organizations of its teachers.

The approach to integrating CBPP into the composition classroom and successfully answering the compensation question should be developed along two lines: principles and practices. When attempting to determine how we value writing conducted, essentially, entirely outside the classroom on a CBPP network such as Wikipedia, instructors must look to the principles of composition instruction – as informed by rhetorical theory – to guide assessment and ward off panic. Likewise, in practice, the assessment strategies of electronic portfolios, with their reflective practices, allow student writers to review and package many discrete writing "bits" – granularized work – into an intelligent and cohesive whole. Without a full discussion

here of portfolio theory, we can simply note that when CBPP dissolves the role of authorship and makes composition work difficult to attach to a particular student for the sake of rewards, the portfolio not only allows the student to reassemble the work in a meaningful narrative for presentation to audiences outside the composition classroom but the reflective practices it occasions also allows student writers to apply critical thinking skills in assessing their own work as a meta-reinforcement of the overall goals of the composition classroom. This will be further explained in Chapter 4, which examines an experiment of writing in wikis for composition classrooms and electronic portfolios as an essential part of that practice.

While portfolio assessment practices can assist with assessment problems created by the granularity and modularity of CBPP writing assignments, again it is transaction theory that suggests new opportunities for assessing writing produced in the CBPP classroom. Economic transaction cost theory instructs us that CBPP offers lower transaction costs by placing the writer in closer proximity with the reader. If we fundamentally alter the teaching arrangement in the composition classroom by replacing the firm model with a CBPP network, then we have also fundamentally altered the flow of academic currency. If student writers have faster and more immediate access to their audiences, then there is less need for an instructor to replicate the audience's reaction to the student's text. Instead, the writing instructor can now assign at least a portion of the currency – or the process of acknowledging effective writing – directly to the student's audience. Any number of schemes is imaginable in a CBPP network, where audience feedback can play a direct and quantifiable role in assessing the qualities of student writing. This need not mean that the instructor surrender all authority in assigning grades. Instead of acting as the sole source for assessment, however, the instructor of the CBPP writing classroom can focus on assisting the writer to assess for his or her self audience feedback and make changes in the

text to improve its reach. This re-conceptualization of assessment and academic currency will no doubt give some readers pause. However, if we accept the premise of epistemic rhetoric that truth is made in a dialogue between writer and reader and reject the objectivist and subjectivist notions that it is held exclusively by either party, then assigning the audience a greater role in assessing the effectiveness of the student writer's prose is a logical development. This does not mean that the writing instructor abdicates the responsibilities of assessment. Instead, increasing the role of the audience through indirect assessment of student writing emphasizes the instructor's role in training the writer to interpret audience feedback accurately and to make textual adjustments. The only question that remains is which classroom structure better prepares student writers for their writing lives after college: writing for the instructor as sole arbiter of composition value, or competing for the attention of a diverse and responsive audience with an experienced instructor as guide.

Transaction Costs, Audience Proximity, and Invention Costs

Thus far, one of the major considerations we have imported from economic theory to explain and predict CBPP has been the idea of transaction costs. In economic terms, CBPP reduces transaction costs and allows for greater and more diverse contributions from individuals. In terms of rhetoric, we have identified that transactional economic theory focuses on the connection between writer and audience. Further, we have looked at the difficulties created by the firm model of teaching writing, which places the writing instructor in the difficult position of both imagining the breadth and depth of audience reactions to student work as well as preparing writers for responding to audience demands. The advent of CBPP erases the need for this double-bind by reducing the proximity between writer and audience. Thus, CBPP reduces the

transaction costs between writer and audience, as well as audience and writer. Reducing the transaction costs means moving the writer closer to the audience or increasing the writer's awareness of audience due to the increased frequency and volume of audience feedback to the writer.

But while the economic model allows us to witness the performance of lowered transaction costs between writer and audience in CBPP, we have yet to investigate how it affects what might be termed the writer's invention costs, or the difficulties of conceiving a writing project or topic. Economic theory, especially firm theory, does anticipate the costs of coordinating input from various contributors, but not specifically the costs we incur when we brainstorm material for writing. In terms of transactional rhetoric, invention costs are lower in CBPP because of the writer's increased proximity to audience, or the text. Just as the closer proximity to audience lowers the transaction costs of writing in CBPP, so too does that nearness lower the invention costs as the writer benefits from seeing the existing text, acknowledging the kairos of a particular CBPP contribution, inventorying his or her own creativity, and envisioning a fit between his or her creative output into the existing text. To examine the claim that being closer to audience and text aids the creation of content in CBBP, it is worthwhile to look more closely at the most popular tools for describing audience in contemporary composition theory.

Contemporary composition theory analysis of audience has been profoundly influenced by the thinking of Lisa Ede and Andrea Lunsford, particularly in their seminal article "Audience Addressed/Audience Invoked: The Role of Audience in Composition Theory and Pedagogy." Ede and Lunsford offer the terms "audience addressed" and "audience invoked" to describe a split between the ways writers interact with their audiences, and, in turn, the manner in which audiences impact their writers. Though the distinction is not new (Ede and Lunsford credit Henry

W. Johnstone, Jr., and Chaim Perleman), what these authors bring to the conceptualization is a distinct phrasing of two extremes in audience awareness and a memorable way to navigate between them. For Ede and Lunsford, those who "envision audience as addressed emphasize the concrete reality of the writer's audience; they also share the assumption that knowledge of this audience's attitudes, beliefs, and expectations is not only possible (via observation and analysis) but essential" (321). In contrast, Ede and Lunsford write that "[t]hose who envision audience as invoked stress that the audience of a written discourse is a construction of the writer, a 'created fiction' (quoting Long, p.225)" (325). For Ede and Lunsford, these two extreme caricatures of audience both get it wrong, because they argue that each side "has failed to adequately recognize 1) the fluid, dynamic character of rhetorical situations; and 2) the integrated, interdependent nature of reading and writing" (321).

At first, it would seem that CBPP would favor the idea of an "audience addressed," since it pulls the audience much closer to the writer, often creating the role of CBPP co-authors working on the same text. But because CBPP reduces transaction costs between writers and audiences, it also brings forth the very condition that Ede and Lunsford anticipated when they spoke of the "fluid and dynamic character of rhetorical situations." Writers no longer need to invoke audiences, since the mechanism of electronic communication within a healthy and dynamic CBPP environment allows for varied and instant responses. Writers are also not forced to consider only "audience addressed" since they can choose when and where to submit text within the CBPP network, releasing as much or as little text as they are prepared to reveal (granularity) and on a schedule that suits their needs (modularity). The CBPP dynamic ultimately reduces the distance between author and audience, since members of the audience all share the same potential for contributing text. CBPP does not erase the identity of authorship by obfuscating

identity through collaboration. Instead, CBPP fundamentally transforms identity by clarifying the audience's access to the text. When the roles of author and audience become interchangeable and fluctuate rapidly, then control over a text requires a consensus between authors and audience. CBPP is not only a more "fluid and dynamic" rhetorical situation than Ede and Lunsford could have anticipated in 1984, but it is also a full manifestation of what they called "the integrated, interdependent nature of reading and writing" (321).

In describing this middle ground between audience addressed and audience invoked, Ede and Lunsford write that "The most complete understanding of audience thus involves a synthesis of the perspectives we have termed audience addressed, with its focus on the reader, and audience invoked, with its focus on the writer" (332). To visualize this environment, the authors offer an illustration of "the concept of audience." The figure is a wheel, with the writer at the hub and spokes running outward to invoked audience roles -- "self, friend, colleague, critic, mass audience, future audience, past audience, anomalous audience" -- and addressed-audience roles -- "future audience, mass audience, critic, colleague, friend, self" (331). Surely the fundamental placement of writers in a CBPP environment, with little impediment to two-way communication between people with an equal chance to read, contribute, or alter text, best represents the highest manifestation of this invigorated composing environment. Ede and Lunsford write about the composition of their own essay to illustrate their point that the best model of the composing environment represents input and edits not only between themselves as co-authors, but also between several readers from whom they sought input during the composition of the article.

Because CBPP reduces the transaction costs between author and audience, it might be tempting to think that the CBPP environment favors audience addressed over audience invoked. After all, in CBPP the author need not wait to seek out the audience addressed; instead they too

are contributing to the same project, most likely editing the same text the author is offering. But even though the CBPP writing environment raises the profile of the audience addressed, the audience invoked still retains its invaluable place in the writer's consciousness. It is just that this role is invigorated by the immediacy of the addressed audience. As long as other contributors in the CBPP system do not actually invade the author's consciousness, there will always be a need for audience invoked. The difference is that within the CBPP environment the potential gap between audience addresses and audience invoked is considerably diminished. Ede and Lunsford seemingly call for this very environment when they write that "The most complete understanding of audience thus involves a synthesis of the perspectives we have termed audience addressed, with its focus on the reader, and audience invoked, with its focus on the writer" (332). In fact, they call for it even more strongly when they offer that "[a] fully elaborated view of audience, then, must balance the creativity of the writer with the different, but equally important, creativity of the reader" (334).

If we can cite the immediacy of audience contact in CBPP as a method of invigorating the author's relationship to the audience, some caution is also needed. Not all theorists would contend that quick and easy access to the audience is beneficial to the composition process. Peter Elbow sides with other expressivists such as Donald Murray when he advises caution with audience contact in "Closing My Eyes as I Speak: An Argument for Ignoring Audience." Elbow writes that "[p]utting audience out of mind is of course a traditional practice: serious writers have long used private journals for early explorations of feeling, thinking, or language. But many writing teachers seem to think that students can get along without the private writing serious writers find so crucial – or even that students will benefit from keeping their audience in mind for the whole time. Things often don't work out that way" (337). Elbow then continues to cite

examples where student writers get into trouble and consistently produce poor results because of a proximity to audience. He compares writing to acting, implying that like good acting, good writing happens only when the actor is able to ignore the audience – to squelch stage fright – and become rapt in the content of his or her performance. With romantic language, he implies that reading is akin to the acting performance, that the actor has been transported to a place far away, and that we too, the audience, wish to join her. But even though Elbow indulges in some romantic language to make his points, it is the very structure of his argument that undercuts the furthest claims of his essay.

Elbow breaks his claims for ignoring audience into two stages, the "limited" and the "more ambitious." This calls to mind his helpful writing techniques of breaking writing projects into stages developed in *Writing Without Teachers* and elsewhere. Elbow has argued, rather convincingly, for writing strategies that fully separate the roles of creator and editor. In so many words, he contends that fire-walling the creator off from the editor allows for creativity and volume in prose; correspondingly, the editor has a better chance of seeing the form of text and "hearing" how the text sounds for audiences when freed from the task of creating text. Elbow's argument to ignore the audience is no different. The lesson for those of us who wish to integrate CBPP into the composition classroom is that writers will need a safe place to develop text before placing it before an audience or sharing it with co-editors. The need for such an incubation period, in fact, grows when we shift from writing only to classmates and instructors to the audience-empowered environment of CBPP. Before student writers can produce text and open it up for co-editing, they need to have a chance to hear their own words. Writing in a CBPP environment is consistent with this practice – there is no need to have student projects start on the wiki. As Elbow states, "ignoring audience can lead to worse drafts but better revisions"

(338). In fact, writing in a CBPP system can accelerate creativity because it extends the writer's inward focus from the typical composition classroom experience of invention for an assigned topic to a self-examination of each writer's creative impulses, expertise, and interests for topic selection. Elbow's bifurcation of the creative and editorial processes is useful to CBPP composition processes because the act of creation is extended from invention to topic selection.

Invention and Laziness

CBPP writing in the composition classroom extends student invention practices into topic selection. Historically, students are assigned essays by the instructor. The instructor determines the essay topics in terms of course goals, determining what type of writing assignment will assist students in developing the necessary writing skills. Instructors often balance additional demands in determining how narrowly to focus the focus of the assignment; essays that require each student to address the same question are easier to assess, but invite plagiarism, while topics that are broadly defined by instructors and require more student self-examination result in more individualized essays.

CBPP in the writing classroom offers a different approach to topic selection for student writers. Students who submit work for a large, robust, CBPP network such as Wikipedia instead of an instructor-assigned question have a more rhetorically challenging task. Depending upon the topic of the CBPP network – and its purpose and methods in serving that topic – student writers might have a great deal of flexibility in choosing a topic for their composition writing project. The difference between addressing an instructor-assigned question and assessing the needs of a CBPP project is vast. Many CBPP projects can be more narrowly defined – for instance, Travel 66, a wiki that collects travel experiences. On the other end of the spectrum lies the more

broadly-defined Wikipedia, which allows contributions on almost any known topic that can be addressed in a reliable manner. Thus the student who approaches a CBPP network can first address his or her own creative impulses and expertise to select a writing project. Yes, the instructor will still need to coordinate that writing activity with the overall goals of the classroom, but instead of the instructor controlling that process from the beginning by positioning his or her self as the mediator between writer and audience, the student writer has the more challenging responsibility of assessing her preferences, the project's needs, and its standards for contributions. Adding these responsibilities to the composition process not only alters how we conceptualize invention, but also creates a learning environment that develops professional writing skills by more accurately admitting the challenges of a mature writer's goals.

The task of assessing one's creative interests as the natural starting point for any project has been referenced earlier in this dissertation. In the introduction and in Chapter 1, we noted that a major claim by Benkler for CBPP was that CBPP improved was a more efficient economic model because it allowed individuals to self-assess their creative abilities, rather than requiring a firm manager to do so. Similarly, Chapter 2 discussed the hacker tradition of "laziness," or the idea that workforce rules are changing – in part because of increasingly modular and granular work – to allow workers to self-select projects based on their creative impulses and avocation goals. In the composition classroom, writing in a CBPP network extends invention to the topic-creation stage and affords composition pedagogy the opportunity to invite more student creativity, increase the amount of student writing through increased transactional efficiency, and intensify student commitment to writing projects by acknowledging the hacker concept of "laziness." Student creativity is increased through CBPP as the writing process starts with the

student assessing creative desires and then acting upon them, rather than simply accepting a line of inquiry from the writing instructor. When the writing project is initiated in this context, the student is more likely to identify with the results and is more invested in the outcome of communicating a message with an audience. Finally, the CBPP approach in the writing classroom facilitates what hackers dub "laziness," or the convergence between what we choose to work on for our self-fulfillment and for someone else's advancement. Balancing the demands of audience – but not allowing those demands to squelch creativity – is part of the careful balancing act that has long been the focus of collaborative learning.

CBPP Merges Solitary and Collaborative Writing Processes

If one mentions the concept of collaborative learning in composition circles, the work of Kenneth Bruffee is almost always cited. *Collaborative Learning: Higher Education, Interdependence, and the Authority of Knowledge* is a touchstone work for teachers of writing who are interested in collaborative learning strategies. In setting up the topic of the book, Bruffee begins with a personal anecdote about his experience as a new and overwhelmed Writing Program Administrator at Brooklyn College during the institution's first year of open admission (3-7). To cope with the flood of students in the hallways, Bruffee writes that he sought the company of other WPA's at sister institutions, figuring that they might have answers for his administrative problems. When he set up their initial meeting, he quickly learned that these fellow administrators did not have the authoritative answer for his problem – as a consequence, however, they formed a regularly meeting support group of people seeking answers for similar problems. By coming together and working collaboratively on the problem of how best to handle the demands of numerous students who had not received the K-12 training needed for college,

they formed a prototype of the very answer they were seeking.

Most of their students were from a socio-economic background that infrequently intersected with college graduates. Bruffee identifies this process of moving from one culture to another as key to their ability to survive and learn; for their students, this process of acculturation was emotional, and psychological as well as intellectual, as the students were often encountering the culture of the academy for the first time. In this educational transformation Bruffee found a common strategy for all learning processes, stating broadly that people

> reacculturate themselves by working together. That is, there is a way to sever, weaken, or renegotiate our ties to one or more of the communities we belong to and at the same time gain membership in another community. We can do that if, and it seems in most cases only if, we work collaboratively. What we have to do, it appears, is to organize or join a temporary support or transition group on the way to our goal, as we undergo the trials of changing allegiance from one community to another. (7-8)

Thus, Bruffee sees successful college learning as forming these support groups for students in the process of moving from one community to an academic community. In reference to his own support group of beleaguered administrators, Bruffee describes them also as knowledge seekers. Unlike their acculturating students, they were experienced professional academics, quite comfortable gathering knowledge through traditional research. However, this group of academics was similar to their students in that the community of learners dramatically affected how they came to value what they read. Bruffee observes:

> [A]lthough we learned a lot from what we read, we learned a lot more from what we said to one another about what we read. [. . .] In the process we became a new

> community. It was a knowledge community in which members talked about college and university education as quintessentially reacculturative and talked about reacculturation as quintessentially collaborative. (9)

Bruffee argues then that the process of learning is essentially the same for all of us, whether or not we are experienced academics. All learning is the process of moving from one knowledge group to another; in this way, we can envision that engaging in scholarship and traditional library research is actually the process of engaging in conversation with various knowledge communities scattered across time and organized by topic.

Bruffee's analysis of engaging in learning communities clearly anticipates the act of writing in CBPP. When writing in an extended CBPP system, one encounters the same dynamic of entering a new knowledge community, stepping from a traditional learning community into an electronic one. Instead of the speakers being scattered across time, and located in the library, however, this community is scattered across a global network, with participants able to respond to almost immediately to new developments. Just as Bruffee offers a short anecdote to explain the dynamics and experience of creating a knowledge community in managing a writing program, so too will a first timer's anecdote about writing for Wikipedia serve to illustrate the shift in learning communities from traditional to CBPP.

Sam was a colleague in my English department at the University of Georgia. In October 2003, Wikipedia was a new concept, and I was trying to explain to him that it was an online encyclopedia that anyone could edit. Like most of us, initially Sam could not believe that the content would be worthwhile, either readable or remotely accurate. To demonstrate to him that both were possible, I invited him to sit with me at a computer terminal. We opened up the Wikipedia site. I asked him to look up any topic he could possibly imagine. He was startled.

“Any topic?” he asked. “Any topic,” I answered, not bothering to explain that while Wikipedia was, even in 2003, staggering in its scope, there were certainly many incomplete areas. Sam entered “professional wrestling” and up came a comprehensive encyclopedia entry with definitions, history, discussion of rules, themes, characters, cultural impact, and sources. The entry was so credible, in fact, that Sam had a difficult time accepting that anyone could edit the entry at any time. After going back and forth on this concept several times, I decided that the only way to illustrate this to him was to insist that he edit the professional wrestling entry. He wrote “CAGE MATCH” into the entry[4]. Sam was amazed to see that, indeed, he too was editing the article. Since editing an article with gibberish, even for the purposes of illustration, erases the work of other contributors and is essentially an act of vandalism, I immediately left Sam’s office and walked down the hallway to my own terminal to erase Sam’s entry and restore the “professional wrestling” page to its original state. But before I could walk down the hall and reach my computer to edit out Sam’s remarks – a period of less than five minutes – a Philosophy student in Edinburgh, Scotland, had made the appropriate changes.

Thus, in terms of Bruffee’s analyses, Wikipedia is an online knowledge community. Sam was attempting to join it, and in order to help him break the bonds from his existing knowledge community (our English department) and learn the protocols of contributing to a new knowledge community, I acted as a facilitator of the transition. The new knowledge community was represented by Wikipedia generally, but more specifically by that Philosophy student in Edinburgh who was monitoring the topic, quickly identified Sam’s contribution as off topic, and erased it almost immediately. Sam was interested to learn how the new community worked, but did not become a full-time participant. However, even this brief orientation to Wikipedia is a

[4] A permanent link to the entry, with Sam’s “changes,” is here: http://en.wikipedia.org/w/index.php?title=Professional_wrestling&oldid=1613136 .

moment which follows Bruffee's example of the student (Sam, in this case) entering into a new peer group, and gaining support during his transition from his existing knowledge group into a new knowledge community.

Hybridizing Bruffee for the CBPP Classroom

Under Bruffee's classroom models, the teacher sets the foundation for effective collaboration through the following tasks: (1) breaking students into groups of approximately five, (2) providing the students with a task, (3) reconvening students in plenary groups, and acting as a referee to negotiate consensus, (4) acting as the class's local representative of the academic community, and (5) evaluating explicitly the quality of the students' work (21). With little alteration, Bruffee's model can thus provide a baseline for preparing a transition of composition pedagogy from traditional instruction to accommodating CBPP in the classroom. When CBPP is applied to the composition classroom, the firm model is augmented first by moving the teacher from the position of ultimate authority (the firm manager) – dispenser of what Bruffee calls foundational knowledge – to the role of knowledge community transition facilitator. The instructor assigns groups, creates tasks, assists in the evaluation of those tasks, and assigns the ultimate grade for completion of tasks. The CBPP component continues to allow students to self-identify tasks in the invention stage, and the lowered transaction costs of communicating with an audience allows Bruffee's newly established community to speak clearly to those students attempting to join it. This teaching strategy also relieves the instructor of the necessity of trying to speak for that new community, as dictated by the current market model of teaching (Bruffee's number four), and allows the instructor to facilitate the transition. Evaluation of the student work is, as noted above, best conducted through the process of reflection

facilitated in an electronic portfolio. Additionally, the CBPP model also allows an instructor to invite the electronic network to participate in evaluation of student work, either through direct means such as comments by other CBPP contributors observed by the instructor or through quantitative data that indicates how often the CBPP system refers to the student writer's contribution.

Bruffee's collaborative learning theory points out that CBPP in the composition classroom will require two fundamental entities in order to support students properly: support from the teacher in the role of both leader and guide, and facilitating conversation within peer groups in class. Although Bruffee does look briefly at collaboratively employing networked computers in the classroom, the second edition of *Collaborative Learning* does not anticipate the full developments of CBPP. Therefore, it is necessary to alter the praxis that Bruffee has laid out to find a richer pedagogy that will best address the needs of CBPP in the composition classroom. Overall, collaborative composition theory is well-positioned for an integration with CBPP in the composition classroom. Just as CBPP also represents a successful compromise between the market model of economic production and the firm model of economic production, so too does it represent a compromise between two different composition approaches: the collaborative approach to writing and the individual approach. The two main aspects of CBPP that we have examined – transactional theory and network structure – provide a successful "compromise" between collaborative and individual practices in several areas. We have already witnessed that the transactional efficiencies of CBPP place the writer in easy contact with his or her audience. That proximity to audience has the power to influence each stage of the writing process, yielding a general principle that CBPP encourages increased collaboration.

In essence, CBPP splits traditional views of interpreting audience reaction. CBPP keys on

individuality by requiring the contributor to self-assess his or her own potential interests and skills before submitting work to a CBPP project. As mentioned above, this is a transactional gain in that the writer's invention occurs with a greater awareness of the audience -- even if the CBPP audience is not composing jointly with the writer, the writer is more aware of the audience as participants in the epistemic network. Similarly, the writer is required to balance that freedom of topic selection against the responsibility of reaching an audience. Measures and methods of demonstrating that audience connection are similarly available to the student writer in CBPP, rather than falling to the best estimation of the writing instructor.

Conclusion

Introducing CBPP principles into the writing classroom reveals several limitations in commonly held pedagogical assumptions – including the limitation of asking instructors act as audiences – and introduces new alternatives for the structure of teaching writing. Inviting electronic writing over a network into the writing classroom dramatically increases complexity and invites a great amount of potential anxiety by destabilizing the classroom discourse. But as this chapter has attempted to show, the motives for importing CBPP into the writing classroom have a solid foundation in the history of rhetorical theory and existing composition practices. CBPP's focus on reducing transaction costs and increasing audience proximity asks the instructor to relinquish authority, but rewards that move with a richer discourse that can only be experienced when the instructor guides writers engaging a varied, diverse, and professional audience. Similarly, CBPP lowers invention costs. Since writing instructors no longer play the role of firm manager attempting to identify topics for students based on a match with their creativity, students themselves are challenged to engage their own topics. Several CBPP models,

especially the discussion board Slashdot, have shown us how CBPP can help to create rich rhetorical communities. Importing CBPP also creates potential problems when we examine the currency of composition in the traditional classroom, but there are existing models – particularly electronic portfolios – that offer proven results in addressing these challenges. Lastly, collaboration in composition theory, particularly the work of Kenneth Bruffee, is well-suited to guiding us in adding the challenges and rewards of CBPP into the writing classroom. Given these promises, the next question becomes "What kind of improvements in student writing should we expect from integrating CBPP into the writing classroom?" Chapter four of this dissertation engages exactly that question.

CHAPTER FOUR

A STUDY OF COMMONS-BASED PEER PRODUCTION IN THE COMPOSITION CLASSROOM

"'I wrote a paragraph of text and there it was,' recalled Ms. Walsh. 'You write all these pages for college and no one ever sees it, and you write for Wikipedia and the whole world sees it, instantly.'"
-- Katherine Walsh, Wikipedia contributor to "Contrabassoon,"
New York Times, June 17, 2006

Introduction

The purpose of this study is to test the claims for increased productivity within the CBPP environment by placing First-Year Composition students in a CBPP environment, and compare the results of their CBPP writing experience to their own results within a traditional writing environment. The preceding chapters of this dissertation have identified a new phenomenon. After giving an introduction to this phenomenon, as identified first by Yochai Benkler in his article "Coase's Pengiun," the introduction also shows the reader the ultimate goal of the project – to assess whether or not CBPP can improve writing instruction. There were several necessary steps before this question could be tackled: in the first chapter the reader explored the economic roots of CBPP, the necessary background in rhetorical theory, and the convergences between the two. The second chapter explores the development of open source software as allegory to the development of writing in networked environments of the information age. Chapter three strengthens connections of CBPP to rhetorical theory, both electronic and transactional; that chapter also examines the special value of collaborative approaches within composition theory.

All of these steps are necessary to pretext to pursue the following question: Does CBPP in the writing classroom improve student writing? If it does, by what measures would we know it?

Benkler's central claim is that CBPP lowers economic transaction costs, as first explained by Ronald Coase, thereby solidifying CBPP as a legitimate, novel production model in economics. For that reason alone, CBPP should be worth our time and interest, since the students in composition classrooms across the academy today will, soon after leaving the academy, be asked to write in collaborative, electronic networks where the rules of transactional rhetoric determine the manner and type of knowledge they produce. That knowledge will be specifically textual, and as teachers of writing we must be prepared to address the confusion that arises from writing in a low transaction cost environment, where the audience is free not only to respond immediately and share the role of author, but the invention costs of developing topics and locating an appropriate node for them rest with the author.

But suppose that Coase is wrong. Suppose that the CBPP network is not an accurate description of the writing environments our students will face in their professional lives. If that is the case, Benkler's claims of increased productivity still stand unchallenged. If CBPP improves upon both the market and firm model of economic production because it frees the individual from the full responsibility of meeting the market's needs while also removing the firm's manager from the job of assessing each worker's creative potential, then it would be worthwhile to know – even if it does not become a significant fact of economic production in the information age – whether or not this networked structure with audience proximity makes for an improved classroom writing environment. The only way to know for certain is to test these claims in the writing classroom.

Literature Review

Two primary methods of inquiry are available to researchers: quantitative and qualitative. Fortunately, they are no longer viewed as mutually exclusive. This study collected both measurements. But the primary analysis is driven by qualitative data. There are several compelling reasons for this, but the primary and controlling factor was the limited sample set. This experiment involved only 28 writers, and almost no quantitative measurements from such a small sample set from which one can make reliable statistical inferences. To obtain a minimal statistical significance, this study would need to look at more than one hundred writers to ensure that quantitative measurements were not by chance or unseen factors, and even a sample of that size would be statistically vulnerable. Still, there is a place for quantitative measurement within the study. Thus, this study seeks to provide an overview of the writing produced by the students using quantitative measurements, and employ qualitative measurements primarily through three extensive case studies.

In *Qualitative Evaluation and Research Methods*, Michael Quinn Patton defines the three basic tools of qualitative research:

> Qualitative methods consist of three kinds of data collection: (1) in-depth, open ended interviews; (2) direct observation; and (3) written documents. The data from interviews consist of direct quotations from people about their experiences, opinions, feelings, and knowledge. The data from observations consist of detailed descriptions of people's activities, behaviors, actions, and the full range of interpersonal interactions and organizational processes that are part of observable human experience. Document analysis in qualitative inquiry yields excerpts, quotations, or entire passages from organizational, clinical, or program records;

memoranda and correspondence; official publications and reports; personal diaries, and open-ended written responses to questionnaires or surveys.

This study will feature the three types of measures that Patton suggests for use in qualitative studies. The written documents will comprise the largest data set; we will examine questionnaires about the experience of writing in a wiki completed by twenty-one of the twenty-eight student writers. Perhaps the most thorough written documentation is the writing itself — we will also look extensively at the number of edits made in wikis by the student writers. Similarly, we will consider comments made by other writers in the wiki about the contributions of the student writers.

Method

Setting

This experiment was conducted during the course of English 1101, the first class in a year-long sequence of First-Year Composition. The course took place during the Fall semester of 2005, or from August 19, 2005, through December 7, 2005. As the procedure section outlines below, however, the experimental portion of this class was comprised of roughly ten days, from November 9, 2005, through November 19, 2005, during which time student writers wrote entries on Wikipedia film pages. Composition occurred during class time as well as outside of class. Students were assigned daily short writing assignments that the instructor read for not only indications of writing skill development, but also for any sign of abnormal participant fatigue or frustration. The instructor also monitored student writing on the Wikipedia talk pages, where students defended their writing submissions. In either setting, students did not see the instructor's participation.

Participants

The participants for this study were twenty-eight students enrolled in two sections of First-Year Composition. All participants were eighteen years of age during the data collection portion of the experiment (one writer began the class at seventeen years of age but reached his eighteenth birthday by the time he was asked to sign his release form). As explained in the procedure section below, all twenty-eight students elected to participate, though not all participated through both means of data collection – individual questionnaires and the focus group. Participation in this experiment did not represent a substantial deviation in the amount of work required to complete the course as compared to sections of the course which were not conducting a writing experiment. The course and experiment were structured so that students met all the educational goals of English 1101, whether or not they chose to participate in the experiment. All students' names are withheld; instead each student has been assigned a number.

Procedure

All students were introduced to the purpose of the assignment and given an outline for participation. This information was given orally in class by the instructor, followed by a question and answer session. (Unfortunately, there is no record of that conversation.) All students would complete the same writing assignments whether or not they participated in data collection. Data collection was comprised of two parts: a questionnaire and a focus group. Both the questionnaire and the focus group results are reported in full in the attached Data Appendix; questionnaires were completed by students on their own, while the focus group was conducted by another

graduate instructor in the English department – Anita DeRoeun – to encourage free responses by students.

Participation in the data-collection phase was strictly voluntary. Each of the data-collection phases was worth 2.5 points of extra credit, added to the final average of the participant. No student could collect more than five points of extra credit. Students were offered alternative extra credit assignments if they did not wish to participate in the data collection. There was absolutely no penalty for not participating in the experiment. However, all twenty-eight students elected to participate, granting permission to republish their work and opinions. Thus, the baseline for collecting qualitative data was established.

The basic approach of the quantitative data was to measure how many words a student writes in Wikipedia, then compare that to how much they write on a traditional assignment. However, as is explained in detail below, it became necessary to measure instead the number of edits students made in the CBPP environment and compare those measurements to the traditional writing environment. In other words, students' edits to a Wikipedia film page were compared to their edits in a traditional essay on the same topic. In designing the measurements, both writing experiences would need to be for the same class credit, and on the same topic. Thus, we can ask one of the two classes to write an essay on a topic to develop FYC goals as a control group, and then ask another class to write on the same topic as an experiment group.

The writing topics, however, must be suitable both for a FYC classroom and Wikipedia. Typical "modes" approaches to essays will not suffice since they often will not also serve as an encyclopedia entry: essays comparing and contrasting various topics will not suffice, nor will the standard thesis-based essay. Thus, since much of what needs to be accomplished in terms of developing skills for FYC writers relies on assignments that develop argumentation skills, and

there is not a valid CBPP environment for argumentation skills (in Wikipedia argumentation would certainly violate the Neutral Point Of View requirement), less than 50% of the writing time is available for CBPP experimentation. If the FYC classroom writes four essays, as did these two classes at The University of Georgia in the fall of 2005, and one set of essays will need to serve as a control while the other serves as an experiment, there is not room for more than two CBPP writing experiments.

Thus, two CBPP sites were located for student assignments. Wikipedia has already been introduced in some detail. As a site modeled on the encyclopedia format, it readily supported a corresponding traditional FYC essay grounded in composition pedagogy – the description. The second site selected for developing student CBPP writing was Travel66, (http://www.travel66.com). Travel 66 is a wiki where travelers report knowledge about localities and their experiences either as visitors or natives. Thus, it supported a corresponding traditional essay of description as well, but based specifically on a geographical place. Unfortunately, for the purposes of this experiment, Travel66's website software is not as sophisticated as mediawiki, the underlying software of Wikipedia, and student entries were very difficult to trace. Once students posted work to World66, it became prohibitively difficult to track the contributions back to the individual. Due to the oversight of the researcher, these results are essentially lost to the experiment. By contrast, work submitted on Wikipedia is subsequently identifiable by contributor, through its robust combination of the contributions page (displaying contributions by individual) as well as a track changes feature (which allows the user to compare any two versions of the page). Therefore, only CBPP writing on the Wikipedia site has produced quantitative results. There were three options for structuring the experiment, as the table below demonstrates.

Table 4.1 Experiment Sequence Options

	Option 1		Option 2		Option 3	
	Essay 3	Essay 4	Essay 3	Essay 4	Essay 3	Essay 4
9:05 Class	Paper (control)	Wiki (experiment)	Wiki (experiment)	Paper (control)	Paper (control)	Wiki (experiment)
10:10 Class	Wiki (experiment)	Paper (control)	Wiki (experiment)	Paper (control)	Paper (control)	Wiki (experiment)

Option one is the traditional method of arranging control and experiment groupings. The benefit of this arrangement is that it "controls" for instructor bias; if the instructor's presentation unintentionally privileges either the control or experimental version of the assignment, then it will be less likely that those results will be duplicated for each group, and at least one set of results will not be tainted. If essay three and four are on the same topic, then the drawback for option one is the sequencing of the wiki versus the paper assignment. In option one, the 9:05 class is allowed to develop expertise in the topic in a traditional research paper and then apply it in the wiki; the 10:10 class must attempt to write for the audience in the wiki while simultaneously attempting to establish expertise on the topic. If, however, essay three and essay four are different topics, then it becomes more difficult to draw conclusions for each group's wiki writing experience, since the wiki audience participation might not be equivalent.

Option two presents essentially the same choice: if essay three and essay four are equivalent, then both groups must develop expertise on the topic and report their results to the

wiki simultaneously. While this is certainly possible, is it more difficult than option three. If essay three and essay four topics are dissimilar, then it will be difficult to compare the writing experiences regardless of where they occurred, since they will be dedicated to different topics.

If the topic for essay three and essay four remain the same, then option three allows for all writers to develop expertise before writing on Wikipedia. It also allows direct comparison between the traditional writing experience to the CBPP environment. Therefore, option three was chosen as the format for this experiment.

Data Analysis: Quantitative Data

Benkler's chief claim for working in the CBPP environment is that not reporting to either a manager or a market allows for greater productivity. Specifically, because workers are able to select what project they will work on, and how much or how little they will produce, they both examine their own motivations and apply greater creativity to a project. In terms of the writing classroom, then, writing for this experiment was created in such a way as to best test those two claims. What is the quantitative evidence of writing with greater productivity? And what is the quantitative evidence of writing with greater creativity?

For the purposes of this project, there are two possible measures for greater writing productivity: number of words written and number of edits made. These measures are not necessarily the best in terms of composition theory; indeed, research conducted by Nancy Sommers and many others clearly articulates a consensus point of view that holistic revision practices are a better writing strategy (Sommers). But holistic revision is more difficult to establish quantitatively. In order to understand how a particular revision affects the text, it is

necessary to collect qualitative information, especially the writer's intentions as to how the revisions improve the text. Thus, this study will collect both quantitative information about student revision practices (hard numbers about the numbers of edits student writers made) and compare them with the qualitative information about revision as recorded in the case studies (including thoughts on what changes were made and what the student hoped they would accomplish).

The writers in this experiment were asked to write an essay with a maximum number of words, and there is no way to change this word limit without fundamentally altering the pedagogical structure of the course – to do so would be to place writers in a contest to write the most words. Therefore, there is not much use in comparing the number of words written in the traditional assignment on film (essay 3) to the assignment on film in Wikipedia (essay 4). Further, writers in Wikipedia faced a very uneven landscape for their text: some writers added text to a very well-developed page, and others created entirely new pages. Additionally, some writers faced environments where other contributors accepted their words without much question, while in other cases students had their text removed from Wikipedia almost as fast as they could add it.

Therefore, the quantitative measurement that could be measured for each individual writer was the number of edits made on the traditional paper assignment (essay 3) compared to the number of edits made in Wikipedia (essay 4). The results are shown in the table below. But before reading that table, the reader will need a note about the structure of the writing sequence for my class. Each essay project consisted of four stages: Text Dialogues, Exploratory Drafts, Mid-Process Drafts, and Concluding Revisions, or the final draft. Text dialogues are composed as short responses to readings, much along the lines or reading journals. There will be a text

dialogue for each reading. At the conclusion of the readings, students freewrite a good amount of text without much restriction on form; these thoughts are collected in the Exploratory Draft. Students review the Exploratory draft for valuable ideas which they then take forward into a more formal essay, known as the Mid-Process Draft. That draft is peer reviewed, and from that peer review the author makes final changes and completes the Concluding Revisions, or final draft. A typical class will complete this cycle four times in a semester.

At the end of the semester, assessment is conducted through electronic portfolios (see Yancey and Weiser). E-ports have the advantage of encouraging student reflection about the value of what they have learned in the class and how the course had impacted their development. This encourages quicker transference: students who leave a portfolio class are more aware of the skills they have acquired and are likely to use them sooner. E-ports give the CBPP class the added benefit of allowing students to process the impact of multiple, discrete, heterogeneous writing assignments and assess them in terms of the class's stated goals. Since the writing for wikis can generate multiple writing pieces of varying length, e-portfolios are an essential part of assessment in this writing class.

Table 4.2: No. of Traditional Paper Edits to Wikipedia Edits

Student	Essay 3 MP	Final	Wikipedia
1	16	12	3
2	5	19	30
3	5	5	7
4	9	12	5
5	30	38	1
6	9	69	8
7	17	35	29
8	9	10	n/a
9	1	5	10
10	8	7	12
11	3	7	2
12	3	7	12
13	26	28	21
14	3	17	5
15	8	13	4
16	11	7	6
17	32	16	11
18	11	8	9
19	110	13	9
20	9	2	6
21	48	16	13
22	11	7	24
23	8	13	14
24	61	19	24
25	26	15	n/a
26	8	12	n/a
27	38	0	8
28	10	10	17

Thus, the column labeled “Essay 3 MP” represents the number of edits made by a student on the Mid-Process draft as compared to the preceding Exploratory Draft. The column labeled “Final” indicates the number of edits made to the Final Draft as compared to the Mid-Process Draft. And the last column indicates the number of edits made to Essay 4, the Wikipedia page, by that same student. For the purposes of this study, an edit was defined as a single change to the text. Therefore, inserting a comma is an edit and is measured the same as inserting an entire

paragraph. This is problematic for many reasons: great attention to text can be reflected in limited, small, and carefully considered edits just as well as in large, sweeping edits that move a lot of text around. Making a great number of edits to a text does not necessarily improve it. Yet, the measure of an edit remains one tool we can use to form a picture of the amount of attention students paid to each assignment.

Looking at the data tells us that there is little correlation between edit patterns in either environment. The greatest number of edits made to any document was 110, made by Student 19 to her Mid-Process Draft of Essay 3. Yet in the next draft the writer made only thirteen edits, and in the Wikipedia environment that writer made nine. Some writers were heavy revisers in each environment (Student 7, 13 and 24). Some writers made substantially more revisions in Wikipedia compared to the paper environment (Students 2 and 9), while some revised more in the paper environment (Students 1, 5, and 19). In fact, in many cases, it is difficult to see any connection between revision patterns within the different stages of the traditional writing environment. Again, student 19, who made 110 edits to her Mid-Process Draft, made only 13 to the final paper. Similarly, student 27 made 38 edits to his Mid-Process draft and none to the final draft. These data are, by most any measure, inconclusive. While comparing edits between traditional writing environments and the Wikipedia environment reveals little additional understanding, comparing edits made within Wikipedia is a different matter.

Table 1 in the data set provides a good amount of evidence as to what makes a successful writing project within Wikipedia. By examining the number of edits each writer made, one is able to get a feel for how active they were within the Wikipedia project. More importantly, this table indicates not only how many words the writer (or collaborative writing team) was able to add, but also how many of those contributions remained one month later. These numbers indicate

not only how active writers were within the Wikipedia environment, but also how that writing was received. Based on the numbers, we can take a closer look at three individual projects using a qualitative case study approach.

Data Analysis: Qualitative Data

Case Study One: Student 13

In the fall of 2005, at the age of eighteen, Student 13 enrolled in English 1101. In introducing herself to readers of the electronic portfolio, she portrays herself as someone who has enjoyed a strong connection to texts, dance, and music throughout her life. But above all, she has always enjoyed texts: "I learned to read at an early age. When I was two years old, I loved to sit and look at books, memorizing them and looking at the pictures. By the time I was four, I could read well and was already writing short stories for fun. So I've always loved to read and write" (Data). Student 13 is also an avid *Star Wars* fan. In the fiction of George Lucas and the legions of fans for his milieu, Student 13 exercises her appreciation of both music and science fiction.

Student 13 was easily the quietest student in class. When called upon, she was always able to participate, but her responses were so quiet as to be almost inaudible. This had the immediate effect of also quieting her classmates, who strained themselves to hear her speak. Speaking then, as she was, into a silent void with absolutely no ambient chatter to offset her utterances, she invariably modulated her voice even further downwards. This created a cycle where the listeners strained themselves further still – sometimes physically leaning toward her – which lowered her voice even further. My polite requests to "speak up" were always ineffectual. In her portfolio biography, she writes openly about this reluctance: "I have always been a bit shy and quiet. I'm

the type of person who would rather spend time practicing dancing or reading a book, than go to a social event. And I've always hated getting up in front of a class to talk. I'm terrible at oral presentations. I always talk too fast and quietly and get really nervous" (Data). Student 13 was clearly someone who didn't like to speak aloud in public places.

But she had no such problem writing in them. As is often the case, muted responses in one venue seemed to lead to compensation in others. Student 13 was one of the most successful writers in the Wikipedia environment: she was able to contribute large amounts of text in one of the most contested areas of Wikipedia, the *Star Wars* film page section, and her contributions were clearly valued by that knowledge community. Student 13 wrote over twenty contributions and edits to the Wikipedia entry for *Star Wars Episode V: The Empire Strikes Back*, which reflects on her expressed love for the films (http://en.wikipedia.org/wiki/Special:Contributions/dancerlbw). Thus, structuring Student 13's writing opportunities in such as way as to allow her to share hew knowledge and enthusiasm by preparing text for a large audience was the job of the writing assignment.

Student 13's assignment asked her to break down the tasks of establishing ethos, assessing project needs, making textual contributions, then justifying those contributions. After being introduced to Wikipedia in class, students were asked to write "out a description of your understanding of the Wikipedia project, its goals, its problems, and how you feel contributing to the project will or will not help your writing skills" (Data Assignment 4). Thus, from the outset, students considered not only the purpose of the Wikipedia audience, but also how connecting with that audience might further their development as FYC writers. The next stage asked writers to survey twelve Wikipedia film pages and then to summarize the qualities of what they considered to be the best pages, both in terms of style and content. Student 13 not only was able

to articulate what she believed made a good film page, but she also developed a rationale for why those elements needed to be present (or, in CBPP terms, she addressed their relevance and accuracy): “I think that the more developed and thorough a Wikipedia entry is, the better it is. I think there should be a brief summary for those who only want to know a little about the film, but the rest should be thorough and informative so that those who are fans of the movie will learn stuff too.”

After reviewing twelve film pages, Student 13 narrowed down her choices to *Star Wars Episode V*, or *The Aristocats*. She was able to evaluate both pages and see that there were areas for her to improve. Clearly, though, she had a preference for working with the Star Wars page. But she recognized the knowledge community there as stormy, and less than professional. In the pre-writing of assignment three, she writes: “I also am concerned about it because of the discussions I read about the changes made. Some people were pretty hostile and used profane language when people made changes to their work. I want to do *The Empire Strikes Back* but I'm just not sure if it's a good idea or not” (Data). Eventually, she decided to tackle *Star Wars Episode V*, even though the community was intimidating.

But as other students noted in the focus group, writing for a well-developed area in Wikipedia can be challenging. First, the writer must assess the existing content on the page and look for “an opening” wherein he or she can contribute. Even this task of assessment, then, demands a threshold of topical expertise. Before the writer can even address the audience, he or she needs to have enough factual command of the topic to appreciate the strengths and weaknesses of the encyclopedia page both in terms of form and content. The challenge was made even more difficult for well-developed and/or hotly debated topics. *Star Wars* pages, in fact, were specifically cited by students in the focus group as exemplars on both of these grounds:

"[Y]our writing, you get to be kind of like an expert about it, which is also nerve-wracking because you've got people who might dedicate their entire lives to this one movie. Like if you're writing about *Star Wars*, people could get really offended if you write something wrong about it[5]" (Data Set, Focus Group, ll. 31-4).

Even a cursory glance at the *Star Wars* pages in Wikipedia reveals that the students' fears are well-grounded. Not only are the *Star Wars* pages well-developed, but the question of what should and should not be included in the entries, as recorded in the discussion pages, is hotly debated. User comments on the discussion page are often emotional and tense, with more than enough vitriol to fill a political campaign. For example, within the discussion pages of *Star Wars Episode V: The Empire Strikes Back*, a user named "A Link to the Past[6]") gives a reader the idea of the tone of discourse to which Wikipedia can sink to when he writes "Adam, don't tell me I have no right to fix this article. I have MORE right, because my edits delete bad content." (http://en.wikipedia.org/wiki/Talk:Star_Wars_Episode_V:_The_Empire_Strikes_Back). A combative tone is not in keeping with Wikipedia policy, as is widely acknowledged by Wikipedia itself. In fact, Wikipedia keeps track of some of the more ridiculous conflicts – known as edit wars – on a separate page entitled, "Lamest Edit Wars" (http://en.wikipedia.org/wiki/WP:LAME).

Thus, for any writer seeking to write for a reasonable audience, Wikipedia can present challenges in both locating a home for the content and then making it "stick." In fact, the fastidious and unbalanced perspective of some of these discourse participants creates a solid argument for Walter Ong's strategy of imagining a reasonable and literate audience (as stated in

[5] Even though the speaker is not identified on the audio tape of the focus group, we can be sure that these were not the words of Student 13 due to a difference in gender.
[6] As he writes "My name is on the almost not-known SNES cult classic, The Legend of Zelda: A Link to the Past!" (http://en.wikipedia.org/wiki/User:A_Link_to_the_Past).

"The Writer's Audience is Always a Fiction") over the immediate and infantile one that the electronic environment of transactional rhetoric sometimes provides. On the other hand, while many of the raging debates on a Wikipedia page might seem out-of-balance to the outside observer, or at least hopelessly nerdy, consider that as a knowledge community working under the operating conditions of transactional rhetoric, the narrowly-focused and technical debates within the Wikipedia knowledge community are often no different from debates within other professional communities. For instance, the debate on the Star *Wars: The Empire Strikes Back* page that was nominated for Lamest Edit War centered on the following question: should the page acknowledge an actor who was not credited in the original film version, but then later credited in the DVD release? For this group, the question is a threshold for defining relevancy. One camp argues that an original document is controlling; another argues that the updated version should be the authoritative guide. Strictly in terms of form, then, this debate is similar to arguments on whether Jewish, Christian, or Islamic texts are authoritative, or whether or not a constitution or its amendments are valid law. Only the perspective of the viewer can determine what constitutes a vital debate about a life-defining truth or an irrelevant debate between *Star Wars* nerds. For a First-Year Composition writer, this can be a very challenging writing environment indeed, and successfully navigating the dynamics of the CBPP community serves as an excellent preparation for more substantive debate after First-Year Composition.

As Student 13's experience shows, these challenges can be good problems to have. While the low transaction costs of Wikipedia make audience response a more material factor in the consciousness of all writers, not all of the voices are unreasonable. Student 13's contributions earned rare praise from frequent contributors. After making her contributions to the *Empire Strikes Back* page, she authored the following entry on the discussion page: "I contributed some

things on this movie page. I did: ‘awards and nominations’ section; ‘music’ section; ‘quotes’ section; ‘budget/box office info’ section; added to the ‘radio drama’ section; ‘theme’ section, [and the] ‘setting’ section. I added these things to make the Wikipedia entry more complete and informative. I hope my contributions helped” (Data). Note that she has not only materially contributed to the development of the page, listing these contributions in her inventory, but she also couches her contributions in terms of the overall mission of the project to protect her work from removal.

A stronger appeal might have made explicit the connection between the writer’s contributions and specific goals from Wikipedia documents, but even her broader gesture received unusual acknowledgement from those bickering *Star Wars* Wikipedians. In response to Student 13’s contributions and tacit hope of approval, one regular contributor indicated that her work would even influence the layout of other pages, answering directly her question of whether her work helped the project: “Yes! They certainly did. Now we can apply that to the other five *Star Wars* film articles. The only thing is, we removed redundant (setting) or POV sections (quotes, theme). Everything else is fine. This article was severely lacking in content, and your contributions helped quite a bit, from what I can see” (http://en.wikipedia.org/wiki/Talk:Star_Wars_Episode_V:_The_Empire_Strikes_Back).

That post refers to one of the two content policies that students most often must come to grips with; “Wikipedia: No Original Research” and “Wikipedia: Neutral Point of View.” The ban on original research is intended to ensure that as an encyclopedia Wikipedia contains only widely-accepted facts, refusing “[. . .] any previously unpublished theories, data, statements, concepts, arguments, or ideas; or any new analysis or synthesis of published data, statements, concepts, arguments, or ideas that serves to advance a position”

(http://en.wikipedia.org/wiki/Wikipedia:No_original_research). Similarly, just as a reference tool wants only to reflect widely-documented information, it also resists bias wherever possible. Thus, articles should attempt to fairly state all positions when necessary; the official NPOV policy states "All Wikipedia articles must be written *from a neutral point of view*, representing views fairly and without bias" (emphasis in original) (http://en.wikipedia.org/wiki/Wikipedia:Neutral_point_of_view). Thus, the Wikipedian's post suggests that Student 13's sections on quotes and themes were removed because they violated the NPOV policy.

How? Here is student 13's theme statement that the Wikipedians removed for violating the NPOV policy: "Theme - The movie's overall theme is good versus evil. This theme is portrayed throughout the entire *Star Wars* saga. There are also many other smaller themes that play a role in the film including 'strength over fear, 'peace over anger', 'honor over hate' and selflessness over self-centeredness." This text could hardly be considered as conveying bias. Identifying themes in a creative work is, to a large degree, unavoidably subjective. But the student included a "themes" section only after her research of several pages indicated that well-developed film pages included this type of information. Clearly, the student also reported these themes in a neutral manner. But even if the inclusion of a themes section is deemed too subjective to be included in an encyclopedia page, that leaves the matter of her deleted quotations. These were deleted outright, again, supposedly for violation of the NPOV policy. But the quotations are content taken directly from the film, with no commentary provided by the student. If content from the work in focus is itself deemed too "subjective," what contributions cannot fall under violation of the NPOV policy? At times, working on a CBPP project as large as Wikipedia can challenge the sanity of both the contributors and the instructor, since anyone can

edit the page, removing thoughtful commentary on the basis of an editor's faulty reasoning. Writing on Wikipedia sometimes resembles the job of Sisyphus, where writers continually contributing and re-contributing information in an effort to convince a perpetual stream of would-be editors of the accuracy and relevance of the topic. One student in the focus group cast the project in these terms; when asked if she would use Wikipedia as a reference source in an academic paper, she responded: "No. Because it's opinion-based, and people can say whatever they want to say, until someone else edits it. So I don't think it's a reliable source for academic-type research paper at all. As long as it sounds good they'll keep it until someone else decides to change it, so you're basically going off of other people's opinions all the time. [. . .] So you have to research the research page that you want to use to make sure that the info is correct. So it's like, you're not really using it. You're just checking the facts and . . . it's pointless" (Data Set, Focus Group, 87-90; 156-8).

At these points of bewilderment, however, it is worth considering that Wikipedia does function largely as it was intended to function. Studies such as the one recently conducted by *Nature* demonstrate that while Wikipedia is not quite as accurate as the electronic *Encyclopedia Britannica*, the difference in accuracy is not large enough to dismiss Wikipedia as unreliable (Giles). In fact, regardless of what its detractors have said both within and beyond the project, the *Nature* study concludes that Wikipedia "comes close" to the online *Encyclopedia Britannica* in terms of reliability[7], though Wikipedia is much larger and corrects errors more quickly. Although student 13 did not contact me with any concerns, I did remind the class that from time to time it was helpful just to look at the daily article on the main page of Wikipedia. Each day a new article is featured that highlights the best work of the process, indicating that by and large the key of CBPP, or low-cost integration, is at work on Wikipedia. Additionally, producing

knowledge within an epistemic network necessarily involves convincing others to endorse your contributions, as has been discussed in Chapter 3. Thus, as a practical matter, students were reminded in the assignment "to document on the discussion pages what you are changing and why you think it improves the page in terms of Wikipedia's own style" (Data, Assignment 4). By and large, contributions to Wikipedia are successfully reviewed for accuracy and relevance. The constant examples of model articles on its homepage provide individual examples, and the *Nature* study provides evidence as to the accuracy across the breadth of Wikipedia's content. Addressing concerns about audience reaction to your writing is clearly a rhetorical task, never more important than in a networked environment.

The structure of assignment four – the film page – specifically asked students to research and contemplate the objectives and outcomes of the knowledge community to which the writer contributed. The goal of the assignment was for the student to present an expert and knowledgeable ethos to improve a film page in Wikipedia, or to add a new film page to the database. The assignment required students to know the goals of Wikipedia as a CBPP environment, to articulate these goals, and to present their knowledge in such a format consistent with the CBPP community's expectations. Specifically, the order of tasks was:

> (1) identify, review, and assess Wikipedia's goals and policies to determine how our information can best contribute to the goals of that project; (2) decide which film you will write about, and whether you will work as a group or on your own; (3) examine Wikipedia film pages to determine the rhetorical elements of the best pages; (4) make your changes to the page; and (5) document on the discussion pages what you are changing and why you think it improves the page in terms of Wikipedia's own style. (Data)

[7] Wikipedia was found to average four errors per article, while the online Encyclopedia Britannica averaged three.

Returning to Benkler's market and firm models of economics, students were asked specifically to contemplate the needs of the market, or professional audience, before preparing a submission. Each student assessed multiple Wikipedia pages to discern a desirable style and content. In terms of Benkler's CBPP, Student 13 and the other contributors to the *Star Wars: The Empire Strikes Back* page acted as co-contributors to a project that reviewed their modular and/or granular work for both relevance and accuracy. Perhaps even more appropriately, however, we should examine how Student 13's experience played out in terms of Berlin's transactional rhetorics, specifically epistemic rhetoric. To recall, Berlin writes that "Epistemic rhetoric posits a transaction that involves all elements of the rhetorical situation: interlocutor, audience, material reality, and language" (Berlin 16). Thus the collaboration can only make knowledge through dialogue: each party has equal rights to edit text in Wikipedia, so the only way to make lasting contributions is to win the consent of other contributors by matching the relevance and accuracy of your content to the project's stated topic, which is itself open to editing.

Overall, student 13's final thoughts about the experience revealed a balanced perspective. In composing her overall reaction to the assignment, Student 13 specifically cited the moment where her audience publicly praised her work and touted its usefulness. But the success of that moment was diminished somewhat by her feelings about the loss of traditional authorship and the lack of control over her text: "My general reaction to writing on Wikipedia is that I like it. I like how you can share information and make it available to others so easily. [. . .] I like that it's so easy to write entries and make them available to public. In fact, one wiki writer complimented and thanked me for my contributions. But I don't like how all your work can get deleted so easily" (Data).

Even given these reservations, Student 13 advanced beyond the general sentiment of the class when she decided that writing for Wikipedia was a positive experience. The class as a whole represented differing opinions about the experience of writing in Wikipedia. Many seemed to look with mild ambivalence at the experience as an experiment, both in the literal and metaphorical sense, summing up the experience with statements such as "I thought it was like challenging to try to find a way to integrate, what you've already written [. . .]. [O]ur movie paper was kind of like well-developed, and it was kind of hard to integrate what we wanted to put in. And then as soon as you would put it in, someone would change it" (Data Set, Focus Group, l. 19-23). Others still rejected the premise of Wikipedia entirely, citing many of the standard objections – no absolute control over text, too many demands in addressing a large public audience, or lack of factual integrity for a source which any one could edit. Of course, the class had to see the entire experience through the lens of an experiment, since they signed Institutional Review Board forms agreeing to participate in educational research. This was unavoidable. Therefore, there was an implicit understanding that even though these were graded assignments, the fact that they were conducted inside the confines of an experiment determined that this was a writing project in some way "off the beaten path."

While Student 13's summative comments were measured, she was decidedly more upbeat. Even though there was a discussion of the reasons why composing in a CBPP environment was advantageous, both in terms in developing composition skills and perhaps anticipating future working environments, Student 13's summative comments were a committed endorsement of the idea of writing in a CBPP environment: "I enjoyed writing in Wikipedia. I'd never even heard of wikis before this class. Now I think I'm going to find them useful for both educational and entertainment purposes. I had a good experience with Wikipedia and am glad I

was introduced to it" (Data). How much of Student 13's positive reaction of the Wikipedia experience owes directly to the specific praise she received from Wikipedians? Further, how much of that praise is due to the low transaction costs, and how much was strictly chance? Student 13's positive experience, when considered against some of the more critical comments of others in the focus group, indicates that the increased audience feedback in the transactional rhetoric environment is not merely desirable in terms of pedagogy, but perhaps essential. As we have seen, student 13 specifically cited the public praise her contributions received as crucially shaping her writing experience. Other speakers in the focus group, who presumably did not enjoy Student 13's positive feedback, were more critical of the CBPP writing environment.

Case Study Two: Students 22 and 24

Students 22 and 24 worked collaboratively to create a Wikipedia page for the film *The Color Purple*. Neither student was initially aware that the other was interested in working on the project; both had a love for the film and were somewhat surprised that Wikipedia did not yet have an entry for such an acclaimed film. Each student approached me about working on the page independently, and once I informed them that a classmate wanted to work on the same page, the pair willingly agreed to collaborate. The story of their collaboration gives the reader ample evidence of the fact that CBPP projects occasion student interactions that would not happen otherwise. While it is conceivable that these two students could have collaborated on a project based only on their proximity in the classroom, their interaction might not have occurred without a CBPP project. Neither of the two interacted much in class, and both came from social groups which, historically at least, have not always interacted well at the University of Georgia.

Student 22 is a young, African-American man from the Bronx, New York, and a recent transplant to Georgia. His demeanor in class was usually reserved; he is quite soft-spoken and did not usually initiate conversation. As his biography reveals, the central event in his life is the recent arrival of a younger brother, and in relishing the role of big brother, Student 22 gives the reader an idea of his values and perspective when he writes that: "Personally, I did not have any inspiration within my life--up until the birth of my now six-month old brother, Christian, who means the world to me. [. . .] Ever since the day he was born, I made a promise to myself that I would become the epitome of an older-brother role model. I plan on passing down to him all the fundamentals of life, especially emphasizing the importance of a college education" (Data). Student 22 continues to explain that he hopes to work in a health profession, and that he has spent a great amount of time volunteering in that field. Not much about his biography would indicate the type of writer he would become.

Student 24's biographical background is almost the opposite of Student 22. A white female, she writes about growing up in rural Georgia: "I am from Newnan, Georgia, [. . .] a small, country town, [where] I was very involved in high school. I was a Varsity Cheerleader, Class Officer, and a member of many clubs and organizations" (Data). Yet the two students shared three similar characteristics: each wrote about their undying enthusiasm for their identity as a University of Georgia student, or "bulldawg"; each expressed some anxiety about writing for a professional audience; and each student wished to pursue a career in a medical field. Given these diverse geographical, racial, and gender backgrounds, it is interesting to consider how a passion for *The Color Purple* would unite them. As a film about a female African-American character in rural Georgia, there was something to appeal to the life story in each of these

students. As mentioned before, both students independently selected *The Color Purple* after reviewing twelve Wikipedia film pages to evaluate and summarizing their form and content.

Both students expressed some apprehension at the outset of the project. Student 22 viewed Wikipedia with a willingness to participate, but also with some apprehension about the reliability of the open content model: “I feel that everyone who contributes to this website learns a little bit more than they already knew. Wikipedia appears to be unique because the articles posted in this site are edited by the general public, which means that the validity of its work needs to be checked” (Data). He continues, predicting the experience of writing in Wikipedia and indicating exactly how he anticipates that the experience will assist him in developing his writing. For this student, reacting to potential criticism seems to be an important challenge, right alongside evaluating existing Wikipedia content to best determine where contributions might be most needed: “I feel that contributing to this project will help my writing skills because it will help me gain experience in accepting constructive criticisms and using them to my advantage. I think that this project will also help me in distinguishing important from non-important information within an article because it requires us to critically evaluate an article to see where best information could be used. I feel like this aspect of the project will especially help my writing skills” (Data).

Student 24 had a similar outlook on the assignment, also citing some anxiety about being able to provide useful content to the Wikipedia project. But Student 24 is noticeably more anxious about her ability to contribute, and that anxiety comes out clearly in her pre-writing reflection. She specifically fears the invention stage, implying a fear that her cognitive processes will not be up to the task: “I will most likely read my film's page and not see anything I could add to it. It will take a lot of thought on what to add and what I can bring to this film's review. If I can find useful information to add, I do feel it will contribute to my writing skills. It will

contribute to them because it will show me that I can think on other levels. It will help me realize that this type of information allows some thought and not something I can think of quickly. I feel this will be the most difficult assignment, thus far, for me. Hopefully I will be able to find something to add to my film's page. I am very nervous about beginning this assignment."

In the next stage of their assignment, both students begin a review of Wikipedia film pages to find out which pages were of interest to them. After reviewing several, Student 22 develops some definite opinions about what an audience of a Wikipedia film page needs: "What makes for a better film page? Well, I believe that a film page that contains the basic rhetorical elements such as plot/summary, external links, cast/actors, and awards are always well-rounded and thus, makes a better film page than those that do not contain this information. However, pages that are too long and boring are not favored by me at all. Each movie film page should have captivating photographs on their film pages so as to catch the immediate attention of its viewers" (Data). Thus, he comes to the project with a preference for a succinct outline as well as some visual rhetoric. Student 24, however, praises depth in her review of Wikipedia film pages. Her preference for "depth" in content seems in keeping with her earlier fears about not being able to provide sufficient material:

> A good film page on Wikipedia would go into depth on the themes and symbolisms (*sic*) found in a film. Possibly remind the viewer of something that they might have missed the first time they watched the film. Some of the pages I reviewed showed how the film related to pop culture. Another category I think would be interesting would be mentioning what the film has done for society. Or maybe even what influenced the film to be produced. Although Wikipedia gives the basic information of a film, I think the pages would be more interesting if they

contained information that is not so obvious to the viewer. (Data)

Thus, these students would have to strike a balance between a succinct entry and a comprehensive one.

The third and final stage of pre-writing asks the writers to make choices about which page they will edit and what they feel will be the major challenges for them. Both writers are surprised that there is no *The Color Purple* film page in Wikipedia. Even though there is a page for the novel, they both felt strongly that a major motion picture by Steven Spielberg – one that was nominated for best picture in 1985 – is certainly deserving of an entry. Given his preference for brevity, however, Student 22 envisions that creating the structure for this page from nothing will be a major challenge. His pre-writing exercise indicates that he is very aware of the demands of his audience, and he is motivated to provide them with accessible and credible information about an important topic: "[I]t is up to me to create a page that enables viewers to view the different aspects of the movie such as plot/summary, external links, awards, cast/actors, etc. Thus, this assignment will be especially difficult considering that I cannot make changes to my film's page on account of there not being one in the first place. I do feel like there is a lot to be said about this particular film and am astonished that no one online has created a film page for *The Color Purple*" (Data).

But it is not entirely "up to him." Student 24 is at the same time reaching the conclusion that a page is needed for *The Color Purple*. She is also surprised that Wikipedia does not yet have a page for this film and expresses a sense of seriousness about the job of creating it: "I have a lot of work to do on this film page. The film *The Color Purple* was a major picture film so I am surprised the page has not yet been produced. [. . .]. I still need to do a lot of research about this film so I know in which direction my page is going to be geared towards" (Data). Clearly, both

of these writers are aware of the demands placed on their writing by their audience. They both express a sense of surprise that the page does not yet exist, as well as a sense of urgency about remedying that fact. Both of these statements indicate that the CBPP project has engaged these writers beyond the commitment of a traditional FYC writing assignment. They clearly understand that there is an audience for their work, so it will need to be both readable and reliable. There is no need to for them to guess what their instructor wants them to "write about," either: they themselves have researched the purpose of the Wikipedia project, and, as both users and contributors, they are highly motivated to connect to their audience. Regardless of whether or not these students succeed in developing a model Wikipedia page, they are intensely connected to work that embodies all of goals of the WPA Outcomes Statement for First-Year Composition: they are developing a rhetorical knowledge of how to write to different audiences for different purposes, they are synthesizing information from several sources and interpreting it for their audiences, they are learning the conventions of a rhetorical community, and they are engaging all of these tasks in an atmosphere of collaboration – one that dwarfs in scale the types of collaboration that were previously possible inside the walls of a classroom.

The resulting Wikipedia page on *The Color Purple* film is, by almost any measure, a substantial contribution to the overall project. The two students' page, at the conclusion of the assignment, contained an introduction, a plot summary, a cast listing, a list of award nominations, a section outlining the public reception of the film, as well as a subheading for Themes, Conflicts, and external links (http://en.wikipedia.org/w/index.php?title=The_Color_Purple_%28film%29&oldid=28911371). These headings were developed by the two students after their own review of Wikipedia film pages, as well as after class discussion about similar reviews. Since the page was created by

Student 24, there was no existing Wikipedia content to review before adding material. Both writers documented their entries in the Wikipedia discussion page, offering a rationale for their contributions (http://en.wikipedia.org/w/index.php?title=The_Color_Purple_%28film%29&oldid=28911371). Student 22 and 24 each made twenty-four edits to the page during the assignment period in November of 2005, together contributing 801 words. Roughly one month later, 698, or 87% of those words remained on the page. This would seem to indicate that their contributions were valued by the Wikipedia community.

Only a few days after Students 22 and 24 created *The Color Purple* page, however, other users removed entire sections of their content, namely the "Conflicts," "Themes," and "Controversy and Public Reception" sections. Wikipedia etiquette asks that when users remove another's contributions, they attempt to discuss the matter on the talk pages. Good form also asks that users leave notes indicating the reason for their edits as they make them. The user who removed these sections, SamuelWantman, is an experienced Wikipedia user (http://en.wikipedia.org/wiki/User:SamuelWantman), but he did not leave comments on the discussion page to expand upon his reasoning. He did indicate in his edit notes, however, that he was cleaning up the article and removing "POV." Similar to Student 13, then, Students 22 and 24 faced challenges over the acceptance of their text by the network.

Again, Wikipedia defines NPOV in part by stating "Debates are described, represented, and characterized, but not engaged in. Background is provided on who believes what and why, and which view is more popular. Detailed articles might also contain the mutual evaluations of each viewpoint, but studiously refrain from stating which is better. One can think of unbiased writing as the cold, fair, analytical description of all relevant sides of a debate"

(http://en.wikipedia.org/wiki/Wikipedia:Neutral_point_of_view). Each of these sections ("Conflicts," "Themes," and "Controversy and Public Reception") that were deleted, however, attempted to do just that: summarize a conflict, stating the positions held on each side. Since almost anyone can edit Wikipedia, however, it is fruitless to attempt to read too much into this one user's actions – even though he is an experienced contributor to the site, he acts with no institutional authority. There are some portions of these passages that might seem to enter value judgments; for instance, in describing the controversy Spielberg faced over the possible inclusion of an explicitly lesbian love scene, our students wrote "The director, Steven Spielberg, had to be sure he portrayed the characters in the film in the same way one who had read the novel would picture them," which is a statement which would need some verification.

But while some of the content in those sections might have infringed on either the NPOV or No Original Research policies, the section headings themselves did not. This one particular edit was overzealous if for no other reason than it removed three entire categories of information about the film, rather than the infringing statements themselves. This would not be significant if it were not a pattern. Of the several writers who had substantial content removed from Wikipedia, most had sections removed in a similar manner. More interesting, however, was the deletion of a quotes section. Student 24 added the quotes section to the page but Student 22 removed it. Within the entire class project, this is the only substantial example of a student from within the class removing the work of another student. Truly, it marks the fullest assimilation of a writer into the network: often, when student text had been removed from Wikipedia, students emotionally supported each other, and often fostered an "us versus them" mentality from within the class. In this instance of intra-class editing, however, Student 22 followed the editing policy by at least offering the reasoning for his choice in the talk pages by writing "I felt like the Quotes

section that was on this page seemed to not serve much importance to the page overall, and as a result, I omitted it" (http://en.wikipedia.org/wiki/Talk:The_Color_Purple_%28film%29). Not much, if any, cross-talk occurred between these two students about these changes. Additionally, the validity of a "quotes" section was debated within class, with several students expressing the opinion that while that category of information had its place in a fan page about a film, it was not something they expected to see within an encyclopedia (n.b., clearly a different rationale from the NPOV violation given in the Student 13 example). The significance of the deletion from the film page quotes section is that it marks a level of collaboration within the network that is often difficult to reach in the composition classroom itself. Traditional peer review, when conducted in the face-to-face environment, offers almost no incentive for students to risk offending others by deleting their text. The experience of these two writers authoring a collaborative document in a CBPP network would offer evidence that perhaps removal of physical proximity, combined with a strong sense of purpose and audience demand in a CBPP network, allows writers to make more critical, challenging choices about shared text.

Student 22 indicates as much in his questionnaire. He writes that: "Writing for Wikipedia actually encourages me to write because I find it to be extremely interesting for other people to edit my work. I like to look at the revisions and see where my writing lacked information or how I can better convey it" (Data). Thus, it should not come as a complete surprise that as a writer he found no problem breaking through the "politeness" barrier that hampers so many in-class peer-editing sessions and edited out Student 22's "quotes" section from *The Color Purple* page. Still, in spite of his positive contributions to Wikipedia and his successful editing experiences – or perhaps because of them – this student also did not seem to value Wikipedia as a resource. When asked if he would use the source in the future, Student 22 responded with a comment that was

very similar to the anonymous student, cited above in the focus group:

> I would not necessarily say that Wikipedia is a valuable resource for me considering the very important detail that anyone can edit the information found on the site. If I were to use Wikipedia as a resource, I would first have to make sure that the information is correct. To me, it seems like a waste of time because I feel like I would be researching information that is thought to have been correct. I do not think that I would be likely to cite it in my research in the future.

Again, this response is telling, since generally speaking, Student 22's writing experience on Wikipedia could be characterized as positive – he and student 24 created an article, contributed 801 words, and one month later 87% of them remained on the web site (Data). Perhaps some of this tendency to undervalue the experience lies in his perception of the difference between composing for Wikipedia and writing within a more traditional format. Student 22 has an interesting conception of the differences. In his characterization of the traditional classroom writing format, he adds evidence concerning the difficulty of teaching students to envision and write for a professional audience, allowing the writing instructor to act as proxy. He states the case more baldly when he writes:

> I feel that when writing in Wikipedia, you have to write for the general public. By doing so, you have to ensure that all your information is correct and unbiased. Most importantly, you have to be extremely careful not to include any information that would offend others. However, when writing a traditional academic paper, one may be reluctant to take these aspects into consideration because they are only writing for themselves and the professor. [. . .] I feel that there are a lot of guidelines to follow when writing in Wikipedia as opposed to

> writing a traditional academic paper, where the only guidelines the writer may be taking into consideration is those set forth by his/her professor. (Data)

Thus, referring to the traditional writing classroom, he specifically invokes as audience the writing instructor alone. In addition to giving no indication that the instructor reflects the values, needs, and demands of a professional audience, Student 22 not only declares that he writes only for the teacher, but in fact that doing so is less demanding than writing for a general public! Not only does Student 22 feel the pressure of ensuring that all of his "information is correct and unbiased" when writing for Wikipedia, but presumably he does not trust others to do the same. More commentary points up that perhaps Student 22, despite his success working in the Wikipedia environment, shares what Bruffee dubs the foundationalist approach.

As mentioned in Chapter 3, Kenneth Bruffee's *Collaborative Learning: Higher Education, Interdependence, and the Authority of Knowledge* is important for understanding CBPP in the composition classroom, but not the least of which is learning how to predict and defuse negative student reactions to an anti-foundationalist approach to learning. To characterize the foundationalist approach to learning, Bruffee tells the story of a student named Zelda. Zelda was a student in a friend's class, David L. Rubin, at the University of Virginia. Rubin organized the class into collaborative peer groups, which were responsible for reading and responding to each other's work. Zelda objected, at first on the grounds that her students could not possibly have anything to tell her that the Rubin could not teach her. Her question to Rubin -- "Didn't [he] think it was a cop-out for a professor to make students to do all the work while not giving any right answers?" (15) -- clearly sums up the foundationalist resistance to collaborative learning. Similarly, not only did Zelda not think it was not feasible for her to read others' work, but she

complained when others granted her that permission. But once Rubin convinced her she had been granted the right to read her peers' work, she "exceeded his requirements 'by a mile'" (17). Eventually, though Zelda learned to work under the collaborative system, she never embraced it. Even though she knew that she grew under the anti-foundationalist approach, which distributed to her and her peers the same responsibilities of the instructor in assessing their work, she would preferred to live in a world where that authority was exercised by an instructor who knew something she did not and assumed a level of higher responsibility. Similarly, students in this study who resisted writing in the CBPP environment often cited a preference for clearly established lines of authority. For these students, knowledge was something to be handed down from acknowledged experts. The idea of millions of un-certified strangers collaboratively producing knowledge, they reasoned, was anything from specious to obscene. Thus, while Student 22's approach was not as thoroughly foundationalist as other students, Bruffee's study on breaking up traditional learning approaches indicated just how difficult it can be for students to abandon their pre-conceived ideas about what a class should look like. Student acceptance of anti-foundationalist pedagogical practices – if not full, then at least provisional – is the main challenge to writing in a CBPP environment.

Case Study Three: Student 28

The largest collaboration in the Wikipedia project was a four-student collaboration on the film *Good Will Hunting*. The group was comprised of Students 16, 19, 27 and 28, who made 6, 10, 9, and 17 edits respectively. As a group, they contributed approximately 2,632 words to the article, and a month after their contributions were made 2623 (99%) of their text remained. Numerically, then, their contribution to Wikipedia would seem to have been very successful. In

fact, of the entire project, they contributed the largest amount of words to Wikipedia that remained – another collaboration for *The Patriot* offered more content to the database, but much of their text was poorly written and more than half of it was subsequently removed. While the *Good Will Hunting* collaboration did not elicit glowing reviews from other Wikipedia readers, Wikipedia did, by contrast, retain almost all of its contributions.

Within this *Good Will Hunting* group, Student 28 made the largest number of contrbutions and also posted the most feedback in her questionnaire. In many ways her experience is consistent with the general tone of comments most students left on the questionnaire: they were open to the Wikipedia writing experience, they were dubious of its value as an in-depth resource, and they were not always sure exactly how writing in Wikipedia helped their development as writers, but they did feel that the experience was something all students should try. Student 28, by comparison, elaborated on many of these issues and gave a more detailed rationale for her answers.

In the beginning of her work on the *Good Will Hunting* page, Student 28 admitted that she was hesistant about participating. Her main concern was integrating content on the page in a way that contributed to its overall value:

> At first I was hesistant about how difficult it would be to know what to include on the wiki page I was working on, and what to leave out. However, after the first couple of days reading and practicing how to use the wiki, I found it to be just as easy as any other paper. [. . .] Even though I was discouraged to write when I saw how developed my wiki page was, it didn't take long to get a feel of what I could personally write about on the page. (Data)

The data of this student's contributions bears out her intuition. She was able to make 17 edits to

the page, which is one edit shy of the total number of edits made by her three co-contributors. Additionally, contributions made by herself and her teammates were kept by Wikipedia – with only small alterations – for at least a month, whereas less successful contributions made by other classmates were often removed almost immediately. Thus she was able to contribute more to Wikipedia and to find the writing experience more worthwhile, as she found the site to be a resource worth her time and energy.

Student 28 exhibited a nuanced appreciation for Wikipedia as a resource and project. Her co-contributors, who all made fewer edits to the project, by contrast did not feel that Wikipedia had much value beyond novelty. Students 16, 19, and 27 wrote that they were not likely to use Wikipedia in their research, nor would they object if an instructor were to forbid them from using the source in a paper. Student 27 noted that he "would not cite [Wikipedia] for his own research," and that being forbidden from using Wikipedia in a paper "would not be a big deal to me" (Data). Likewise, Student 19 expressed concerns about participating in the writing project. Her reservations with Wikipedia stemmed from a perceived lack of authority: "As a whole I thought writing on Wikipedia [. . .] did not really improve our writing any because we were not critiqued on it. Even if someone edited your passages, you still would not know if it was a middle-schooler surfing the Internet and changing it for fun, or whether it was someone who was skilled in the subject we were writing on" (Data). Even though the text was reviewed in class each day, this writer's response indicates that she requires a direct value judgment from an instructor on her text before she can see value in the exercise – a perspective very similar to the student experience of "Zelda" chronicled by Bruffee in detailing the perspective of foundationalist knowledge in the classroom (Bruffee 14-19). Thus, given the fact that in this Wikipedia experiment the instructor would not award currency for her writing until the

conclusion of the experiment – and even then that currency was to be doled out partially on the basis of how those middle-schooling Wikipedians responded to her text — it is safe to observe that she offers multiple reasons for withholding from full participation. It is also important to note that, like Student 27, Student 19's reservations extended beyond the procedure of the writing experience to Wikipedia directly. She recorded that she "would not cite [Wikipedia] as a source" (Data). Similarly, when asked about the difference between using a source on Galileo (UGA's database of research data by electronic subscription) and Wikipedia, she responded that "there is definitely a difference. Galileo is not a freewriting database; you have to write factual information" (Data). Student 16 did not respond to the questionnaire.

Interestingly, Student 28, who contributed the most to the *Good Will Hunting* page, had found Wikipedia to be a valuable resource in the past. When asked if she found Wikipedia to be a valuable resource, she replied "I think I would use wiki to get a general idea about a topic I was considering researching. [. . .] I am not so sure I would cite [Wikipedia] in a research paper, but I would use it for fundamental research" (Data). Her ability to locate the value of the source on a personal level correlates with her ability to contribute to the source for others. Student 28 realizes that Wikipedia might not be as reliable as other electronic sources, yet that does not mean it is of no value; she has the ability to see the issue of textual authority in degrees rather than in absolutes. And as for those endorsed, subscription sources such as Galileo, she writes that in comparison:

> To me, [Wikipedia] is easier to navigate. So many times with Galileo I have a hard time remembering where I found certain sources. With wiki, it is so much easier to just type in my subject and find what I am looking for. I also like how Wikipedia has pictures and constant criticism and updates. Galileo may lead you

> to dated information on your topic while wiki is virtually being changed nearly everyday. (Data)

Thus, Student 28 is one of the few writers to characterize the differences between Galileo and Wikipedia in terms beyond the sole measurement of credibility. Her argument that Wikipedia is constantly updated, much faster than traditionally-peer reviewed sources, is one that is often cited by Wikipedia's apologists. But she exhibits original thinking when she sees its benefits in presenting graphical information alongside textual, and, perhaps even more compellingly, the asset of accessibility. As Galileo acts as a gateway to a host of subscription databases for the University of Georgia community, by its very nature it remains a polyglot; librarians have dedicated a great deal of time and effort to navigating its heterogeneous landscape. Student 28 was unique in her ability to see that an asset of Wikipedia is the ability to conduct multiple searches on the same site.

While Wikipedia's policies and structures were definitely described and studied as a part of the experiment, I conducted class in such a way as to specifically avoid debate on the merits or problems with the site as a resource. This was to allow students to arrive at their own conclusions about the merits of the site. However, in reviewing the data of successful and unsuccessful experiences in participation, it is clear that there exists a strong correlation between the writers' perceived value of Wikipedia as a legitimate research tool and their ability to find contributing to it a worthwhile experience for writing development. Whether or not a student had strong feelings of support for Wikipedia or held strict reservations about the project, their writing was assessed and graded, just as their writing for a traditional essay would be assessed. Therefore, one might expect that students' appreciation for the project would be flat compared to traditional writing assignments, and that since they received a grade for the work completed, that

even if they had strong opinions about Wikipedia in one manner or another, the fact that they were receiving credit roughly equal to an essay for their work would be the most important factor in predicting the success for their engagement. Instead, it appears that notions about the overall value of Wikipedia specifically, or online writing generally, strongly affected their ability to participate. Indeed, those that had foundational knowledge issues with the project voiced the strongest reservations and were able to write the least.

Additionally, the three students who contributed the least to the *Good Will Hunting* page – Students 16, 19, and 27 combined made only five more edits than student 28 – voiced distrust of collaborative assignments. Ironically, their work product embodied the very aspects of collaborative writing that they cited as problematic: "shirking." Shirking is the term for what occurs when rewards are tied to group results rather than individual performances; in such an environment, some actors will calculate the path of least resistance and collect rewards through group results that are higher than what their individual efforts merit. When asked if she thought assessment in group writing was fair if everyone who worked on the project received the same grade, Student 19 wrote "No, because some people put in WAY MORE work and others only join the group to get out of the work" (Data). Student 19 made nine edits to the page, compared to Student 28's seventeen edits. Student 19's nine edits were comprised of five statements made on the discussion page and four contributions to the actual film page. Of those four contributions, one was a hyperlink, one deleted a paragraph, one was an edit of two paragraphs contributed by another person, and a fourth added a paragraph of content. Although Student 27 expressed no complaint with a shared grade for a topic, he too expressed a preference for traditional single-author work. He made fewer edits and contributions than all but Student 16, who made six edits.

Thus the work of the group was spread unevenly – Student 28 clearly carried the majority of the obligations. How does she feel about group work? She too fears shirking: “I would rather write alone and not in a group for multiple reasons. One reason is social loafing, students’ tendency to put less effort into an assignment when they share work with others” (Data). But perhaps more profoundly, she expresses a reservation against group work beyond shirking, one that cannot be easily mitigated – that the voice of the individual, capable of originality, can be squelched too easily by the chorus of the group effort. She continues: “Traditional projects encourage independent thought and conclusions, while writing in a group may make the majority exclude one person’s individual ideas. Also, I think writing individually is more beneficial to the student because their work is evaluated on their performance, not a group’s (which I feel can be vague)” (Data).

In addition to tensions over group assessment and parity, integrating contributions with existing material, and doubts about the validity of Wikipedia as a sound concept, many of the contributors positioned themselves in response to the pressures of writing for a large audience in a wiki. Unlike before, however, comfort with this issue was not always a reliable predictor of the student’s ability to write successfully in Wikipedia. Student 27, who did not have a great number of edits in the *Good Will Hunting* project, specifically noted that he preferred the idea of writing for a larger audience through a wiki. When asked if it would be more rewarding to write the same assignment in Wikipedia or a traditional paper format, he responded that he would prefer to write for Wikipedia because he “would like to be criticized by thousands of people who view my work” (Data).

Overall, this group had a successful collaboration contributing to Wikipedia's *Good Will Hunting* page. They were able to assess the page, finding gaps in the existing information, and then strengthen it by both editing the existing material and adding new sections.

Findings

The most important findings in these data come from the case studies. The clearest finding of this study is the correlation between students' "buy-in" to the fundamental concepts behind CBPP writing environments and their ability to write successfully within one. Students who most seriously questioned the ideas behind open, collaborative, online writing, were less successful in contributing to it. Students who found value within the Wikipedia approach found greater success participating in it. This study was structured to specifically avoid these issues; within class, not much discussion was given to whether or not Wikipedia was successful or academically sound. There is plenty of evidence for either supporting collaborative writing or rejecting it. But rather than prejudice students against their own participation by questioning Wikipedia or reinforcing the fact that it was part of an experiment (and therefore itself not a part of accepted, mainstream pedagogy), I instructed students in the methods for participating within the platform, rather than in the reasons why one should participate. It is not clear whether or not such a discussion would have led to greater participation. Instead, it is clear that (1) the concept of CBPP is quite controversial, and (2) student writers' attitudes toward that controversy clearly affect their ability to participate within CBPP systems. There is good reason to think that it will be necessary for any teacher who contemplates incorporating CBPP in the writing classroom, particularly if the face of that CBPP involvement is Wikipedia, to provide plenty of time to discuss the validity of Wikipedia. Thus, a good strategy for introducing the concept of CBPP will

be outlined below, as a part of the conclusion. In hindsight, having such a debate might have yielded better results for this CBPP experiment in the writing classroom.

A second key finding from the case studies, as well as from a thorough review of the underlying student questionnaires, is that audience awareness figures prominently in the minds of students when they compose in CBPP. At some points, this awareness causes them to write more, and at other points it causes them to "clam up." But almost every writer who completed a questionnaire, in addition to a clear consensus of the focus group, indicated that they felt pressure from having to write in such a public arena. This pressure created stress. Sometimes this topic would come up in the classroom, but not nearly as much as it permeated their thoughts in their written reflections.

Conclusion

If the main finding of this study is that for student writing in CBPP to be successful, there needs to be student acceptance of the CBPP concepts. Successful acceptance of CBPP principles in the writing classroom requires an effective strategy for introducing, discussing, and debating the concepts of CBPP. Ultimately, CBPP needs to be justified to students as a legitimate part of the composition writing experience, and therefore as a method for learning writing skills.

The best strategy is to begin with the standard criticisms that Wikipedia draws from students and instructors alike; the teachers' comments in the listserv epigraph are as pointed of an example as one can find. Discuss openly the mechanics of Wikipedia: anyone can contribute, and anyone can delete. In many cases it will be impossible to discern who contributed what. No one, or everyone, is responsible for truth and readability. What kind of resource would you expect this environment to produce? And why would you expect those results? If students

elaborate that they would expect that it would produce only poor results, then instructors could ask students to look at the Wikipedia featured article for that day (it will certainly be of excellent quality). Then instructors could ask students to review the findings of the *Nature* study, which found that on average, Wikipedia articles had four errors, while Encyclopedia Britannica Online had three (Giles). Can we dismiss a resource that is almost as accurate as a peer-reviewed source, and is much larger? What does this mean for FYC research – what kinds of sources do students believe they should be allowed to use, and why? This approach will move students right to where the "experts" are on the effectiveness of CBPP writing – divided, with no conclusive evidence as to whether or not the CBPP network will consistently produce knowledge reliably for the purposes of traditional scholarship. There is little doubt among both CBPP detractors and supporters, however, that systems like Linux and Wikipedia are here to stay; they will be an important part of the world in which students write (indeed, if social networks such as Facebook and MySpace are indicators, they already are a crucial part of their writing lives).

If students are given a chance to voice their concerns, then they might be better able to approach the experience of writing in the CBPP environment having exorcised their fears, and having established a framework of at least cautious legitimation for CBPP as knowledge-producing systems, they will see their participation within such a system as valuable and worth their effort. Students tend to think that if we ask them to participate in a writing experiment, then we are asking them to gamble with their own currency – their grade for the class – while we sit on the sidelines of the experiment with nothing at stake. In fact, we know that questions of textual instability that Wikipedia can draw to the fore of the FYC classroom were, in fact, thoroughly predicted by decades of postmodern language theory. Students, even those more likely than FYC students to be familiar with the pitfalls of assuming stability in language, want

to assume that you are a language expert that your reading of their text will make it "right," and that graduating from FYC will be an important step toward obtaining that social imprimatur of the college degree. And, to be fair, we often want to play the expert. But we know, in fact, that despite our gifts and talents for teaching writing skills, and despite the hard-fought skills that students genuinely acquire from our classes, access to the Internet grants students the potential for a larger stage. There is no doubt that if they can successfully navigate the large stage of a massive network, then they will be stronger writers for the experience.

As the reader is by now well aware, CBPP theory, as expressed by Benkler, specifically claims that the advantage of the CBPP work environment lies with the ability of the contributors to select what projects they will work on, and how much time and effort they will dedicate to the project. Thus, contributors in the CBPP network have "bought-in" to the premise of their own work. This experiment was designed to replicate this key fact, by allowing students to choose their own writing topics. It erred, however, in not allowing them to similarly "buy-in" to the concept of Wikipedia itself. If students had been able to self-select their writing environment as well as their writing topics, then the same sort of enthusiasm and potential for creativity that drives Wikipedia and Linux might have been captured in this writing classroom. Writing for a CBPP environment represents a significant departure from what most students expect when arriving in the FYC classroom – they are no longer writing alone, for one instructor who creates their assignment and is the only critic of their work with any authority. There needs to be a vehicle to prepare them better for the transition from their expectations to the CBPP writing environment. To answer these challenges, then, I would suggest the following approach to instructors who wish to incorporate CBPP into the writing classroom.

Begin the FYC experience by identifying students' expectations for the FYC classroom. Perhaps allow that to be an initial, low stakes writing assignment. Then, discuss the results, and ask where they derived these notions – most likely they came from high school writing experiences as well as the cultural knowledge passed down to FYC students from others who have taken the class before them. Next the instructor could summarize these expectations as several main themes – write four or five essays over the semester, write "modes" assignments such as compare and contrast, argument, narration, explication, etc., incorporate some research, write perhaps one or more drafts, maybe some peer review, and write these for the one teacher. After establishing these baseline expectations, the writing instructor should then introduce the goals of the course. This class featured goals which, while in keeping with the The Council of Writing Program Administrators (WPA) Outcomes Statement for FYC, were particular for it. The more universal approach of the WPA goals for FYC will be more useful for reader who might wish to adopt CBPP in their writing classrooms (Data). After these goals are introduced to students, the instructor could ask students to attach the goals to those baseline expectations – showing how these classroom practices have been legitimated by their ability to teach the goals of composition to student writers over time.

At this point, the instructor could introduce the concept of writing in a CBPP environment. The instructor could explain the mechanics of how a site like Wikipedia operates, what the underlying rules are, and how the discussion pages seek to justify text that is added to the site. Then, once all of these CBPP procedures have been outlined, the individual components would also be connected to the WPA outcomes[8]. Such a discussion might look something like this:

[8] It should be noted that the WPA Outcomes are for the entire FYC year-long sequence; not all goals will be accomplished in a semester-long course.

Table 4.3 Rhetorical Knowledge Comparison

WPA Outcomes	**Traditional Assignments**	**CBPP Assignments**
Rhetorical Knowledge • Focus on a purpose • Respond to the needs of different audiences • Respond appropriately to different kinds of rhetorical situations • Use conventions of format and structure appropriate to the rhetorical situation • Adopt appropriate voice, tone, and level of formality • Understand how genres shape reading and writing • Write in several genres	Traditional FYC classrooms accomplish these goals by: • Asking students to write thesis-driven essays in multiple modes • Asking instructors to imagine, articulate, and respond to writing as if they were different audiences • Asking instructors to articulate and assess writing with appropriate voice, tone, and formality • Asking instructors to devise assignments in multiple genres • Creating peer review groups	CBPP-based FYC assignments accomplish these goals by: • Asking students to write in a CBPP format, such as a wiki • Asking students to write for different CBPP projects, with different audiences, purposes, and needs • Asking students in CBPP projects to justify their texts to audiences according to the projects's needs • Research the CBPP project's format • Write for several CBPP communities

Table 4.4 Critical Thinking, Reading, and Writing Comparison

WPA Outcomes	**Traditional Assignments**	**CBPP Assignments**
Critical Thinking, Reading, and Writing • Use writing and reading for inquiry, learning, thinking, and communicating • Understand a writing assignment as a series of tasks, including finding, evaluating, analyzing, and synthesizing appropriate primary and secondary sources • Integrate their own ideas with those of others • Understand the relationships among language, knowledge, and power	Traditional FYC classrooms accomplish these goals by: • Assigning, discussing, and writing about meaningful readings • Integrating research training and opportunities • Practicing process writing, with stages built into writing assignments • Asking students to respond to others' ideas, either as researched or stated in class • Discussing relationships of knowledge, language and power	CBPP-based FYC assignments accomplish these goals by: • Assigning, discussing, and writing about meaningful readings • Integrating research training and opportunities • Practicing process writing, with stages built into writing assignments • Asking students to respond to others' ideas, either as researched, stated in class, or stated to students in CBPP • Experiencing relationships of knowledge, language, and power editing text in CBPP

Table 4.5 Processes

WPA Outcomes	**Traditional Assignments**	**CBPP Assignments**
Processes • Be aware that it usually takes multiple drafts to create and complete a successful text • Develop flexible strategies for generating, revising, editing, and proof-reading • Understand writing as an open process that permits writers to use later invention and re-thinking to revise their work • Understand the collaborative and social aspects of writing processes • Learn to critique their own and others' works • Learn to balance the advantages of relying on others with the responsibility of doing their part • Use a variety of technologies to address a range of audiences	Traditional FYC classrooms accomplish these goals by: • Practicing process writing, with stages built into writing assignments • Employing limited collaboration in class, perhaps through peer review • Critiquing work of others through limited peer review • Discussing the need to rely on others, and perhaps performing that reliance in small groups with other students • Using a variety of technologies to address a range of audiences	CBPP-based FYC assignments accomplish these goals by: • Practicing process writing, with stages built into writing assignments • Practice writing text in wiki “sandboxes” before committing it to CBPP • Experiencing collaborative writing in CBPP • Critiquing work of others, who respond to that critique, and then negotiate a solution to the critique • Relying on others by writing with others, and dividing tasks in CBPP • Using a variety of technologies to address a range of audiences

Table 4.6 Knowledge of Conventions

WPA Outcomes	**Traditional Assignments**	**CBPP Assignments**
Knowledge of Conventions • To build final results in stages • To review work-in-progress in collaborative peer groups for purposes other than editing • To save extensive editing for later parts of the writing process • To apply the technologies commonly used to research and communicate within their fields	Traditional FYC classrooms accomplish these goals by: • Practicing process writing, with stages built into writing assignments • Reviewing work-in-progress in collaborative peer groups for purposes other than editing • Applying some technology	CBPP-based FYC assignments accomplish these goals by: • Practicing process writing, with stages built into writing assignments • Reviewing work-in-progress in collaborative peer groups for purposes other than editing • Applying the technologies commonly used to research and communicate within their fields

Earlier in this chapter, we reviewed Kenneth Bruffee's struggles with convincing students to attempt learning through non-foundationalist approaches. And as this study has revealed, student acceptance of CBPP as a legitimate learning practice is perhaps the main challenge to creating an effective learning environment. This chart is one attempt at how teachers can bridge that gap. By connecting CBPP writing practices back to the support of course outcomes, students will be better prepared to allow themselves to succeed in CBPP environments.

One final consideration should be derived from this study. It is worthwhile to always remember that CBPP represents a particular instance of a broader shift in communication which, as these chapters have shown, has the power to affect our students in many ways. Yet, to develop an effective teaching strategy for addressing this shift, even this experiment – dedicated as it was

to exploring the potential of CBPP in the FYC classroom – represented a change to two of the students' four writing assignments. The results of this experiment indicate that the best strategy for incorporating CBPP into the writing class is a gradual approach. Teachers should consider altering perhaps one assignment to include CBPP. We might also consider a contextual discussion at the introduction of the class to integrate the CBPP approach with traditional composition strategies and outcomes. But most importantly, as this experiment has demonstrated that students should have the opportunity to explore their own opinions and shape responses to CBPP as a part of the formal writing process

CONCLUSION

An otherwise prescient writer wrote a telling article in 1999 for *Forbes's ASAP* magazine. The writer was Tom Wolfe, and the subject was nothing less broad than the Internet. There are bombasts a-plenty in that article, but the one which is perhaps the most regrettable is as follows:

> I hate to be the one who brings this news to the tribe, to the magic Digikingdom, but the simple truth is that the Web, the Internet, does one thing. It speeds up the retrieval and dissemination of information, messages, and images, partially eliminating such chores as going outdoors to the mailbox or the adult bookstore, or having to pick up the phone to get ahold of your stockbroker or some buddies to shoot the breeze with. That one thing the Internet does, and only that. All the rest is Digibabble. (Wolfe 218)

There is certainly some truth in Wolfe's perspective. Or at least there was some truth perhaps in 1999; at that point, most of the traffic on the Internet was downloaded, if not in technical terms, certainly in cultural terms. That is to say, we thought of the Internet as a device we could use to grab the same types of media we knew from an era before the Internet. We had no reason to think of the Internet as a vehicle that would change the types of things we reached for. In 1999, there were few examples of media that the Internet had specifically created.

The change from a model of the Internet based strictly on downloading, to a downloading and uploading model, has been gradual, but is irreversible. What has been recently called "Web 2.0" is also the official "next big thing." Beyond the hype – and there is enough hype to start pundits talking of another Internet bubble – there are a few, quiet principles that teachers of writing should observe from this latest shift. First, wikis have a played large role in "flipping the switch" or moving the Internet from strictly a download model to a bi-directional experience.

Soliciting content from almost everyone has, almost paradoxically, yielded a genuine resource. We can learn a lot from the way a Wikipedia creates knowledge; but to learn from it, we need to support our students as they explore it. The firm model of economic production reveals the fallacy of attempting to play the role of the audience for our student writers. Teachers now have the option of allowing a large and diversified audience to respond to student writing, and there can be little doubt that as more CBPP models are developed, the number of ways to allow that audience into our class will also increase. Therefore, part of the mission of this dissertation has been to illuminate the underlying concepts of CBPP as a writing experience so that we can see them when the next Wikipedia is developed.

Our students will live in a world with Commons-Based Peer Production, or, more simply put, a world of networked writing. This dissertation has attempted to look at Wikipedia as but one important instance of CBPP. Whether or not we find CBPP to be palatable as a reliable source of knowledge, and whether or not Yochai Benkler is correct in positioning it as a third economic phenomenon, there is little doubt that our students come to our writing classes familiar with networked writing, if by no other means than Facebook and MySpace. It is also true that that they will leave our classes and write in a networked world. What happens inside college writing classes need not be disconnected from CBPP: all of the laudable goals of a liberal arts education can be strengthened by conducting them in a CBPP environment. We already have a strong knowledge base for this environment. Works such as Kenneth Bruffee's *Collaborative Learning* have clearly documented the mental framework – foundationalism and anti-foundationalism – we need for understanding the kinds of epistemological changes that CBPP portends.

As we transform into an information economy, rhetoric takes on an increasingly important role. Just as economics developed and adapted to explain the rules of material production in an industrial age, so too does electronic rhetoric develop to explain the rules of production in the information age. Epistemic rhetoric predicts the rules and foundation for collaboration in information networks, such as wikis, just as managerial economics predicts and explains motivations, behaviors, and rules for producing, predicting, and tracking material production. Undoubtedly, there will be more collaboration to develop a theoretical understanding of how CBPP affects writing and epistemology, but rhetoric and composition theory are well-positioned to lead our understanding. It is my hope that this document will help start the process.

In his work, *The Rise and Fall of English*, Robert Scholes attempts to describe the challenges that face the teaching of English. His book is not particularly concerned with developments in electronic rhetoric, but his grasp of the challenges that face our discipline is prescient. His work focuses not as much only on the developments outside the academy that threaten the status quo, but on the inadequacy of our response and its historical origins. In describing his own personal conversion experience to the power of literature, he writes about seeing Arthur Miller's *Death of a Salesman*; being a fan of that play, with my own personal conversion experience as well, I find it fitting to close with Scholes's insight on both our love for teaching writing and reading as well as the challenges that we face teaching in an electronic, postmodern world:

> I had been dispatched from New Haven to see whether this new work could indeed meet the exacting academic standard for "true tragedy." I cannot remember the verdict on that count, but the play shook me down to my shoes, because it represented a business and family life so close to my own experience

> that it drove me to face, however briefly, the actual conditions and possibilities of my own existence. More than any other single experience, it changed me and started me down a path I have since followed. A conversion experience indeed – an experience, though, that revealed not a convergence between my literary training and the business world but a terrifying divergence of values. This gap, between the values of the humanities and those powerful worlds of business and public life, has only increased in the decades since *Death of a Salesman* appeared. And our inability to deal with it has been a contributing cause to our present state of confusion. (18)

This dissertation has considered the act of inviting students to write in a networked environment as an economic, rhetorical, epistemological, and pedagogical act of composing. But the predicament that Scholes describes, one of a particular interest to those of us in English studies, provides one last consideration for the merits of teaching writing in a CBPP environment. If we ask our students to write in the public space provided by CBPP, we not only return to Aristotle's vision of rhetoric as an act of public engagement, but we might begin to close the gap that Scholes describes. The future of our students' writing lives will no doubt include wikis and CBPP, and there is little cause beyond our current practices not to accommodate these changes now.

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APPENDIX A

Wikipedia Contributions

Student	Wikipedia Film Page	url: http://en.wikipedia.org/wiki/	No in Group	No. individual edits	Group Words Contributed	No. of those words cut in 1 month	Words "Stuck" One Month Later	%	Cleanup Tag?
1	Old School	Special:Contributions/Atptour5	3	3	2101	35	2066	98%	Yes
2	The Patriot	Special:Contributions/Lillysn	3	30	3089	1597	1492	48%	Yes
3	Fatal Attraction	Special:Contributions/allisond	1	7	1386	335	1051	76%	No
4	Old School	Special:Contributions/Mstamara	3	5	2101	35	2066	98%	Yes
5	Se7en	Special:Contributions/Will_jackson	3	1	662	584	78	12%	No
6	Old School	Special:Contributions/KevinKao	3	8	2101	35	2066	98%	Yes
7	Raising Arizona	Special:Contributions/JLL	1	29	1405	3	1402	100%	No
8	Se7en	records missing	2						
9	The Patriot	Special:Contributions/Tnguyen3	3	10	3089	1597	1492	48%	Yes
10	Romeo + Juliet	Special:Contributions/Aott2	1	12	810	565	245	30%	Yes
11	Pretty Woman	Special:Contributions/Valgerdur	1	2	694	212	482	69%	No
12	The Patriot	Special:Contributions/Hsimms	3	12	3089	1597	1492	48%	Yes
13	Star Wars Episode V	Special:Contributions/dancerlbw	1	21	723	27	696	96%	No
14	Se7en	Special:Contributions/Rzeidan	3	5	662	584	78	12%	No
15	Braveheart	Special:Contributions&target=128.192.218.146	1	4	565	324	241	43%	No
16	Good Will Hunting	Special:Contributions/SamBaly	4	6	2632	9	2623	100%	No
17	Boyz N the Hood	Special:Contributions/Reddawg2	1	11	856	38	818	96%	No
18	American Beauty	Special:Contributions/Cblack795	1	9	849	194	655	77%	Yes
19	Good Will Hunting	Special:Contributions/Precious3230	4	9	2632	9	2623	100%	No
20	Fight Club	Special:Contributions/Carsond	1	6	253	253	0	0%	No
21	Donnie Darko	Special:Contributions/JanaBeth	1	13	670	30	640	96%	No
22	The Color Purple	Special:Contributions/Juanfo05	2	24	801	103	698	87%	No
23	Silence of the Lambs	Special:Contributions/Sfox1125	1	14	741	192	549	74%	No
24	The Color Purple	Special:Contributions/KatieHixson	2	24	801	103	698	87%	No
25	Gladiator	records missing	1						
26	Shawshank Redemption	records missing	1						
27	Good Will Hunting	Special:Contributions/VicShah	4	8	2632	9	2623	100%	No
28	Good Will Hunting	Special:Contributions/Asuskay	4	17	2632	9	2623	100%	No

APPENDIX B

Student Questionnaires

Student 1.

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I enjoyed writing on Wikipedia because it allowed me the ability to write for the purpose of actually writing and not so much for the sake of getting a good grade. It was especially challenging to maintain a neutral perspective and by the end I felt like I was a better writer due to this objective.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or niether?

It encourages me to write, but in a more modest manner. That is, writing on wiki was when I first really focused on trimming down my sentences so I got to the point more directly. With the notion in my mind that millions of people had access to this page encouraged me to write more effectively.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

It is a valuable resource but I am still hesitant to use it because anybody could post any sort of random information. Thus, the author's credibility of the page is always an issue. For this reason, it is a valuable resource but in moderation only. I would never fully rely on wiki as my only source.

4. Is there a difference between content on Wikipedia and that which you would find on a

Galileo database? If so, can you characterize those differences?

Their certainly is a difference because most things if not everything that is published on internet databases like Galileo is written by a professional and his credibility is verified for you. However, wiki is more to the point in my opinion because sometimes all the information in those databases is overwhelming.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would understand where he is coming from.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

No, false. While there is a bigger audience on wiki if it were for a grade I would most likely write the paper in the same fashion. Unless there was different criteria set for the two of course.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

Yes, true. It is because you know your paper might benefit someone in one way or another.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

I liked the concept of a group assignment but at the same time I believe it should be

more regimented. Without knowing who does what, it is difficult to gauge which person deserves what grade. Thus, each person in the group should be given a number of tasks that they must meet in order to receive the same grade as others. This task-list should be turned in to the teacher beforehand and after.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

While it was an experience and easier in a group, as I said earlier, it is hard to measure which individual is deserving of what grade. Therefore, I personally would rather rely on myself for my grade then someone that I have little control over.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

No.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Group writing projects could be the same as traditional ones if a way to grade was created that was more fair.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

Laptop, my room.

15. How much time do you spend on an average day reading and/or composing e-mail?

15 minutes a day.

16. How much time do you spend on an average day on the web?

An hour at least.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Yes.

B. Idle curiousity/time-killing?

Yes.

C. Entertainment, gaming?

Yes.

D. Socializing (e.g., facebook)?

Yes.

E. Other?

Shopping and selling.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I've been using the internet ever since third grade or so it has always been a pretty big

tool in my life. I've always utilized it to talk with friend through AOL especially.

Student 2

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

Writing on Wikipedia is definitely a new experience. Throughout years of schooling I never have to write and actually post my work online for the general public to view. Of course I've written online, most of the time just to express my own personal thoughts and feeling, and never anything academic, and my friends and family are my audience. However, writing on Wikipedia is a challenge because I can't write what I think or how I feel, but everything I write has to be factual. Not only am I not allowed to write on a personal level but I also have to address to a wider range of audience, who I'm not familiar to. On top of that, my audience can help me with my writing or criticize my work. The hardest part of all about writing on Wiki is that it takes me out of my comfort zone, and introduces me more to real life writing.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

I don't' really have an opinion on the subject yet, because I havent' receive any feedback on my writing to know, if writing on Wikipedia does actually help or not. But I'm leaning toward it neither encourages or discourages me to write.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

Wikipedia could be view as a valuable resource depending on the topic of research. For general information to ease curiosity on a certain topic, Wikipedia definitely is a resource. However, when writing a scientific research paper, or anything else of the sort

that need a lot of research, Wikipedia is not as reliable as other sources of information that is approved by the field of research. For example, for my research paper, I am directed to use only a few sites that have actual scientific publication posted online and nothing random online, because not all sites are as equally reliable. I would use wikipedia to research in the future, just to get the general idea on my research topic, but I will look for other websites that are recommended by my teachers and peers, and also as a source of comparison between the accuracy of the information posted in Wikipedia and another site.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

I think the content on Galileo is more in depth than on Wikipedia. The reason is that Wikipedia is limited to its contributors, the number of contributor and the type of information the contributor puts into the site.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I'd think that either the instructor doesn't know much about the nature of Wikipedia, as a possible source of good information, or, that the instructor has experience with Wikipedia and knows that it's not a reliable source of information.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

It depends, it could be true and false. It's easier to write that number of words in an academic paper because the writer is allow to write on personal thoughts, and feelings, as long as it relates to the topic. Also, the writer is allowed to quote from others, or write on

possibilities and theory, and not have to stick strictly with facts. It's harder to write an academic paper because the writer needs good transition so that the paper will flow better. Writing on Wiki is hard because only fact is reported, and nothing else that would take up words, which mean the writer has to be very well informed on the topic of research, and impartial with his point of view. It's easy because the page doesn't' need to flow, and there's no need for transitional elements, because of the way Wiki is constructed: category by category.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional paper than in a wiki. Why?

Like the preceding answer, it could go either way. Rewarding to write a traditional paper because the writer is able to follow one idea and construct a well written paper that flows. Rewarding to write on Wiki because the writer could be view as an "expert" on the topic he's writing about, with its many different components (category).

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

I'd rather write in a traditional format of having a single author and single reader because it makes you more focus. It's easier writing your own idea, and style, and not have to compromise with others. With writing in group it's harder because everyone has different writing style, and different ideas that might conflicts with other members. It's beneficial if

the process could be carry out because it appeals to many different readers, and combine different thoughts to introduce new idea that might not have been possible with one writer.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Individually, because rarely in a group project will every members contribute equally. It is human psychology to depend on other, so it's inevitable that the work load is uneven distributed or that members of each group are not equally sharing the amount of work needed to do. So in that sense, it is fairer to work independently and receiving the grade that is equivalent to the effort put forth into the project.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes, mostly for my science classes where we have to write self-directed lab, where we come up with our procedure and methods to carry out an experiment. It's graded as a group. But this year in biology lab, we have to write research paper based on an experiment we did in class as a group, we discuss the project in a group but have to research and write our own individual paper, and get individual grade.

12. What do you see as the main differences between group writing projects and traditional writing projects?

With traditional writing projects the individual does all the work, but in a group writing project, usually the task is equally divided amongst the members, and each will contribute his or her part to the project. In group writing, when it's successful it

incorporates different writing styles and idea into one, instead of a single point of view from the individual writer.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

Usually, I just use my laptop in my dorm. If I'm out, going to class or studying I would use the school's computer, either in classrooms, library, Tate, or SLC.

15. How much time do you spend on an average day reading and/or composing e-mail?

Not much, I rarely email anymore and rarely check my emails because of spam, and now I just write email for important stuff or for classes.

16. How much time do you spend on an average day on the web?

Usually around 1-3 hours, more if I have a paper to write, research to do, or for school in general.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Yes, I usually spend around 1-3 hours researching, and most of the time daily until I finish with my research. Sometimes it takes longer because materials are not available, but at other times when there are an abundance sources of useful

information then it wouldn't' take long for me to finish my research.

B. Idle curiousity/time-killing?

Yes, depends on if I have time or not, and depends on if I'm curious that day or not, but usually around 2 hours or so.

C. Entertainment, gaming?

Yes, when I have time, or taking a break from studying. I try to keep it less than 1 hour a day. It's different whenever I'm on a break or during the weekend, or when I have completed all of my work, then I would spend more time playing game online.

D. Socializing (e.g., facebook)?

Yes, 2-3 hours or so a day. Not much on facebook, but catching up on reading xanga, chatting with my friends or playing games with them.

E. Other?

Yes, listening to music, about an hour a day.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

The first time was when I was around 14, trying to open an email account on Yahoo. It was too complicated for me at the time, even after I have succeeded opening an account, I didn't' know how to open my message or emailing." But how I view the internet is as a big possibilities for anything, either it's for school, entertainment purposes or socializing.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

It was a good experience, because it exposes us to real life writing, and to a bigger audience. It forces us to break away from our comfort zone, to try something different, and also puts pressure on us to do a good job because what we do directly reflects who we are, and others can criticize us just based on our writing.

Student 3

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I feel that writing on Wikipedia was a good experience. Although it was very different than any other writing I had ever done before, I think that it will probably have a positive influence on my writing skills.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Writing on Wikipedia encourages me to write because when looking at the online encyclopedia I am encouraged to contribute to or improve any articles that I feel I could give a positive contribution to.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I think Wikipedia is a good source of information about what other's thoughts and feelings are on a particular topic; however, I probably would not use Wikipedia as a resource for a paper because there is no guarantee on the accuracy of the information.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

Yes there is a difference between the two in that information of Galileo would be more accurate and thorough than that on Wikipedia.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would not hold it against he or she because of the fact that they are just encouraging us to use more valuable resources of information.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

True. I feel that it is easier to write in wiki because the topic most likely has been started, and to me that is the most difficult aspect of writing a paper.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

True. It would be more rewarding to me to have written my own paper from scratch to be ale to say that the work is entirely mine.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

I would prefer to write in a traditional paper format, because that is what I am used to, and I feel that it improves myself as a writer more than a group project.

9. Do you prefer to work in group projects, where each student gets the same grade, or

individually, where each student gets his/her individual grade?

I prefer to work individually and get my own grade.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes on several occasions and the grading usually had some part about an individual's effort.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No, because some put in more effort than others.

12. What do you see as the main differences between group writing projects and traditional writing projects?

The amount of effort that is put into the project by each person.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

I mostly use my laptop in my dorm room, and occasionally a desktop in the emma lab or the SLC.

15. How much time do you spend on an average day reading and/or composing e-mail?

One hour.

16. How much time do you spend on an average day on the web?

Three hours.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

I use it for school research (I usually just search a site from google) time depends on assignment

B. Idle curiousity/time-killing?

C. Entertainment, gaming?

entertainment (yahoo games) about an hour/week

D. Socializing (e.g., facebook)?

socializing (facebook and aol instant messenger) 3 hours/day

E. Other?

shopping (victoria's secret, abercrombie and fitch, ralph lauren polo, guess, bebe, etc.) 3 hours/week.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

Internet has probably made the most difference in my life since I have attended college.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I feel that it was a good experience for me to be exposed to wiki and an asset to my writing. I would recommend for anyone to at least try it and see what they think about it. It has also exposed me to a new resource of information that may or may not be helpful to me in the future.

Student 4

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I definitely enjoyed the opportunity to work on something that I knew would be viewed by more than just my teacher or my English class.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or niether?

Writing for Wikipedia encourages me to make sure I present correct information but does not really motivate me to write in general.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I would not use Wikipedia for any research I would cite in the future simply because I see the process of how the site works. Anyone can come and alter facts at anytime which leaves you to constantly question what you a reading and hoping that it is true.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

Yes there is a difference because I believe Galileo holds higher standards for the information they distribute and not just anyone can change the fact pages. Wikipedia on the other hand allows multiple users to share information that may or may not be true depending on who is posting the data. I would say the Wikipedia content is more based on how the user feels and Galileo offers a more factual base.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would not be affected at all because chances are I would not have used Wikipedia as a source anyway.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

False. Wikis can use the same information that is layed out in a traditional research paper. Only the structure and set up is different but that does not make the assignment harder.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

False. Both can be equally rewarding.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author, multiple reader) or a traditional paper format (single author, single reader)? Why?

I would actually prefer single author, multiple reader simply because I enjoy getting feedback from more than one source on my writing.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Individually, where each student receives their own grade.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes I have worked in group settings in other English classes to present information about a book the class read. Each student received an individual grade based on their contribution as well as a group participation grade.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No because not everyone does the same amount of work.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Group writing projects have to incorporate the ideas and opinions of the group participants while traditional writing projects allow for the freedom of individual expression.

III. Internet Usage

13. Do you own your own computer?

Yes

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

I use my own laptop.

15. How much time do you spend on an average day reading and/or composing e-mail?

Less than thirty minutes

16. How much time do you spend on an average day on the web?

2-3 hours

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

1-2 hours (Google, Dictionary.com)

B. Idle curiousity/time-killing?

1 hr. (Google, Yahoo)

C. Entertainment, gaming?

0 hr.

D. Socializing (e.g., facebook)?

2 hours (Facebook.com)

E. Other? (Internet shopping, music downloading)

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I didn't have the internet in my home until my tenth grade year of high school and even then I didn't spend much time on it because we had dial up. This year has actually been the time that I used a computer the most and I honestly don't think I would have made it through this semester without one.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

It's a new a different experience that everyone should try at least once.

Student 5.

No Data.

Student 6

No data.

Student 7

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I really enjoyed writing on Wikipedia because it was new and completely different from anything I had ever done before. I also liked the format it was in.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Writing on Wikipedia does not strongly encourage me to write, but it made me realize that writing can be pretty fun.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

To me, Wikipedia is a valuable source because it has lots of useful information. I would definitely cite it on a paper because, though there is some false information, it has lots of true, usable facts on it.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

It seems like Galileo has sources that have researched their information more thoroughly.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would think that I would be missing out on a lot of useful information.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

True: I think that it is more difficult to write a traditional assignment because it is easier

to lose concentration and interest when you are just writing a long page versus a page split up into many different sections.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

True: It is probably more rewarding to write a traditional academic paper than in a wiki because it takes a lot more time and effort.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

In future English classes, I would prefer to write on group projects because they are something to enjoy and look forward to.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

I usually prefer to work individually because I can work on my own time and get things done faster; however, I think it is important to learn how to work in a group. I would definitely work individually if I had already written a paper and then was asked to put lots of the information into Wiki, like what we did with the film page.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes. This semester I had a huge group project in Learning to Learn. Our grade was a mixture of individual research, group research, an individual paper, and the group

presentation.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

It is probably fair if it is in English class and it is like the assignments our class had last semester.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Group writing project are usually more interesting and fun.

III. Internet Usage

13. Do you own your own computer?

Yes, I own a computer.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

I own an HP laptop that is in my dorm room.

15. How much time do you spend on an average day reading and/or composing e-mail?

I probably spend about 30 min. of my day reading/composing e-mail

16. How much time do you spend on an average day on the web?

I probably spend about 1-2 hours of my day on the web.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

yes/ If I have a paper due, I spend about 30 min. to an hour on it a day.

B. Idle curiousity/time-killing?

yes/ I spend about one to two hours on it a day.

C. Entertainment, gaming?

not really

D. Socializing (e.g., facebook)?

yes/ I spend about one to two hours on it a day.

E. Other? no

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I can't really remember the first time I used the internet, but I doubt I had a clue what I was doing!

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

Every student should definitely get to experience writing on Wiki.

Student 8

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I enjoyed writing on Wikipedia.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Writing on Wikipedia encouraged me to write because I liked the fact that it was going to be posted on the internet.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

No I do not believe it is valuable resource. I would not cite it in my research.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database?

If so, can you characterize those differences? No, I do not believe there is a difference between content on Wikipedia and Galileo.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would not think anything of it because I do not think Wikipedia is a very reliable source.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

False. They are both the same difficulty to write.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

False. It is more rewarding to write a wiki because it can help other people when they look up the subject that you wrote on.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

    I think a traditional style with some group work mixed in would be the best for future English classes.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

    I enjoy it when I get my own grade but I also enjoy the group work atmosphere.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

    I have done many group projects and they were graded differently. Some teachers gave the group the same grade and others gave each student their own grade.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

    I think each student should receive their own grade.

12. What do you see as the main differences between group writing projects and traditional writing projects?

I believe that in traditional writing projects, Students are able to learn more about the subject that they are writing about.

III. Internet Usage

13. Do you own your own computer?

Yes I do own my own computer.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

I use my own laptop computer in my dorm.

15. How much time do you spend on an average day reading and/or composing e-mail?

I spend about 15 minutes composing or reading e-mail.

16. How much time do you spend on an average day on the web?

I spend about 2 hours a day on the web.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

I use the computer for mostly all of my research.

B. Idle curiousity/time-killing?

I spend about 1 hour a day time-killing on the internet.

C. Entertainment, gaming?

I spend about 1 hour per day on the internet for my entertainment.

D. Socializing (e.g., facebook)?

I spend about 2 hours per day on AIM or facebook.

E. Other?

I spend less than 10 minutes doing other things.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

The first time I got on the internet was on AOL. I got straight on a chat room and thought it was so cool.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I enjoyed writing on wiki and I think that it should be used in the future.

Student 9

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

    I thought it was a good idea because you had a chance to utilize your writing skills to a real audience.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

    Honestly, it's neither for me. I really don't take criticism well and I'm not much of a writer.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

    I think Wikipedia is not a valuable resource and no, I would not cite it in my research because the site can sometimes contain false information.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

    I do not know, I don't use Galileo.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

    I would think nothing of it and just use another source.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

    False. To me, I'm horrible at writing so it's both difficult for me.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

False. I think writing is writing no matter what style or format you are doing it

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

I would rather writer a traditional paper format because I like to work on my own and sometimes some people do more work than others when they do group work

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

I would prefer to work in group projects where each student gets the same grade because some aspects of the project may be harder than another or easier and you might just get stuck with something that is hard and it wouldn't be fair to get a lower grade than someone who had an easy part of the project.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes, in high school we did group projects all the time. I did science fair and social science fair projects and literature projects. It was graded where each student gets the same grade.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

Yes. Working as a group I think it is important to seek out each student’s strengths and

weaknesses and work to where you will have a strong project. Also, it is not fair for someone to get a lower grade because they were assigned to something they were not good at, and someone to get a higher grade because their part of the assignment was easier.

12. What do you see as the main differences between group writing projects and traditional writing projects?

    It seems like you have to do less work when you work in a group and it seems easier to get started on a project with a group

III. Internet Usage

13. Do you own your own computer?

    Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

    I use a laptop (Dell).

15. How much time do you spend on an average day reading and/or composing e-mail?

    30mins-1hour.

16. How much time do you spend on an average day on the web?

    10-15 hrs

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

    A. School research?

Only when I have something to research. 2 hours per project at most

B. Idle curiousity/time-killing?

3 hours a day Postsecret.com, hotornot.com, ebaumsworld.com

C. Entertainment, gaming?

No.

D. Socializing (e.g., facebook)?

Facebook, xanga, myspace 3 hours.

E. Other?

Email 1 hour per day at most.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

The first time I used the internet to do a research paper was when the internet made a difference in my life. I used to have to go to the library and spend countless hours there finding stuff to research on. Ever since I used the internet, it does not take me long to research anymore.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I thought it was interesting and a good way to utilize what we learned in English to write for a general audience. Writing for wiki makes you think about what you're saying and making sure your grammar is correct so you won't be harshly criticized.

Student 10

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I loved writing on Wikipedia. I loved the fact that my writing was going to

2. Does writing for Wikipedia encourage you to write, discourage you to write, or niether?

Wikipedia definitely encourages you to write.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I definitely think the Wikipedia can be a valuable resource! I only put valuable research on my site! I might be a little hesitant to cite it in my future papers.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

I think the only real difference is that Galileo has a more prestigious reputation.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would think that Wikipedia might not be the best resource. It would not stop me from checking out the information on Wikipedia, just to compare with my other research.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

True. I think that it's more subconscious. I think that it is easier to write for because you feel like you are reporting to people exactly like you, as well as reporting information people are actually going to relate to and use.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

False. Personally, I feel that wiki is more rewarding because my writing has the possibility of being read by lots of people, as well as inform people.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

I would prefer a more traditional paper. It is harder to rely on other people in college.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Individually.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes. It was a Library and Internet research project. We were graded as a group on our presentation and graded individually on our own research, etc.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No.

12. What do you see as the main differences between group writing projects and traditional writing projects?

I think doing well on a traditional writing project is more of an accomplishment, than a group project. A group project usually affects a group of people differently. With a group project, you don't feel as responsible for the project.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

Laptop: Apple PowerBook. It comes along with me to class and sits on my desk in my dorm!

15. How much time do you spend on an average day reading and/or composing e-mail?

1 hour

16. How much time do you spend on an average day on the web?

4 hours or more

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

3-4 hours

B. Idle curiousity/time-killing?

1 hour

C. Entertainment, gaming?

1/2 hour

D. Socializing (e.g., facebook)?

2 hours

E. Other?

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I can't remember that far back. All I know is that I would not be able to live without the internet. My 30 year old cousin and her family just got a computer and the internet in their home. She is obsessed with it!! She can not live without it either.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I really enjoyed working on Wikipedia!! I showed my mom both my assignments on World 66 and Wikipedia. She was really proud! I think that it was an assignment I really benefited from!

Student 11

No data.

Student 12

No data.

Student 13

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

My general reaction to writing on Wikipedia is that I like it. I like how you can share information and make it available to others so easily.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Kind of both. I like that it's so easy to write entries and make them available to public. In fact, one wiki writer complimented and thanked me for my contributions. But I don't like how all your work can get deleted so easily.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I would definitely use Wikipedia and cite in my research in the future. I found it to be a beneficial resource.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

I don't think I've ever used a Galileo database before, so I don't really know.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would think that the instructor didn't trust Wikipedia to be credible and reliable. He must not think that Wikipedia is as accurate as an encyclopedia.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

False. Since Wikipedia is only interested in factual information, you must be careful to present the material in an objective way. Also, in a Wikipedia entry, you have to present your information pretty much without using other's work. In a paper, you can include a lot more information because of research and can use others' work as long as you cite them as a source. There is also room for opinions and new ideas.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

True. When you write in a wiki, there's a chance that your work might get deleted. And also, once you submit your contributions, you can't publish them. When you write a paper, it's your own work, nobody can delete it, and you can even publish it.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

I really like both, but I guess I like the traditional paper format more. Then I have more control over what the final product looks like, whereas in a wiki, things can be changed and deleted.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Single author- single reader. I am more of a shy person and I also like being able to have

more control over the project and earn my own individual grade.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes. In my high school history class, we were divided into groups of two and each assigned a decade to study and give an oral and a visual report. It was graded on presentation, thoroughness, whether or not it was interesting, clarity, and creativity.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

Not really. Some people might do all the work, while the others sit back and relax.

12. What do you see as the main differences between group writing projects and traditional writing projects?

In group writing projects, everyone has to work together and do their share, whereas in a traditional project, you're solely responsible for your own work.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

An IBM thinkpad. I bring it with me to school and also use it at home, where I live.

15. How much time do you spend on an average day reading and/or composing e-mail?

About 15 minutes.

16. How much time do you spend on an average day on the web?

About an hour, but sometimes more.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

I visit UGA sites for school.

B. Idle curiousity/time-killing?

I like to go to the National Weather Service and The Weather Channel pages to check the weather. My homepage is the National Weather Service's local forecast for my town.

C. Entertainment, gaming?

I visit www.pines.com to check out Star Wars books for fun.

D. Socializing (e.g., facebook)?

E. Other?

I check my email on Compuserve. I also use Google alot. I go to www.terrificmusic.com, and Star Wars sites as well.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I really can't remember the first time I used the internet. I think it was when I got my email address.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I enjoyed writing in Wikipedia. I'd never even heard of wikis before this class. Now I think I'm going to find them useful for both educational and entertainment purposes. I had a good experience with Wikipedia and am glad I was introduced to it.

Student 14

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I felt liked it because it broke away from the monotony which I was used to in writing English papers.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

It encourages me to make sure I am very knowledgeable on my subject, because there are so many experts on the internet.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I do consider it a resource but I would not cite it in a research paper because anyone can post anything on wiki regardless if it is credible or not.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

I would not hesitate to include resources I found on Galileo because I know that it is reliable.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would not question his decision because it is not 100% credible.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

False. You must incorporate what is already on the internet with what you are writing which can be very difficult.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

I enjoyed writing my individual papers because I felt that I saw my paper grow from absolutely nothing into a finished product which I was proud of.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple authors --> multiple readers) or a traditional paper format (single author --> single reader)? Why?

I enjoyed doing both because it exposed you to more possibilities which will come up in the future.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

I think that although individual projects are more fair, group projects is more realistic in today's workplace. I think there should be a combination of each.

10. Have you been asked to work in group projects in classes before? If so, where, what was the

project, and how was it graded?

Not since being in college. In high school our group projects were graded in a way which we received 2 grades. One grade was for our whole group and the other was an individual grade based on what we contributed.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No it isn't fair because it is impossible that everyone does the same amount of work.

12. What do you see as the main differences between group writing projects and traditional writing projects?

You have to be willing to compromise your sense of creativity in order to make everyone happy in the group. It is also more time consuming to work in a group because you must figure out who is doing what and make sure everyone is on the same page.

III. Internet Usage

13. Do you own your own computer?

I do not have one at school.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

Computers at the SLC and my roommate’s Dell laptop.

15. How much time do you spend on an average day reading and/or composing e-mail?

About 20 minutes.

16. How much time do you spend on an average day on the web?

About 15 minutes.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Yes, lab reports and any papers. A lot of assignments and grades are through webCT which requires a computer/internet. 15 min/day

B. Idle curiosity/time-killing?

C. Entertainment, gaming?

Yes, I check ESPN websites for scores and news. I also am involved in some fantasy sports leagues. 20 minutes/ day

D. Socializing (e.g., facebook)?

By far my biggest waste of time on the internet is facebook. I spend about 45 min/day on this website.

E. Other?

I look at news stories through the internet.

17. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

The first time I used the internet was in 3rd grade and my brother was downloading music. I thought it was the coolest thing in the world.

18. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

Wiki was challenging but I felt it would have been more effective if it was done earlier on in the semester and once again at the end of the semester in order to see how we improved.

Student 15

No data.

Student 16

No data.

Student 17

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I for one am glad that I was introduced to Wikipedia. I had never heard of Wiki, but now that I know about Wiki I have used it to help me study for two of my finals I had this week. Writing on Wiki was also an interesting and new experience. I enjoyed writing on Wiki, because it was a different style of writing then what I am normally used to. It made the class more interesting, changing is always welcomed in my book.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Writing on Wiki has not really encouraged me positively or negatively. I will write regardless, but Wiki adds a new element to writing that is a little different.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

Overall I would say that Wiki is a valuable resource, at least I hope it is. As I said I used it to help me study, so I obviously trust the information enough to entrust my grades with it. Therefore I would be more than willing to cite Wiki as a source.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

To be honest I have never used Galileo, so I can not give an accurate answer to that

question. I have looked on the Galileo database, but never actually used it for research.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would wonder why, I would be confused. I see no reason that a teacher would forbid Wiki. The only reason I could think of as to why a teacher would ban Wiki would be that some of the information is inaccurate and false. The fact that some of the things in Wiki are false and maybe a teacher would be afraid a student may get false information, but that should be left up to the student. If the student feels comfortable and trust Wiki then the student should be allowed to use it in my opinion.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

True. In my dealings with Wiki, I had to incorporate many different aspects of a subject. If you have to write for a certain amount of words, then you have to think of many different aspects of the subject to write on. In traditional writing I can elaborate more on individual topics and aspects of a subject.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

False. It is more rewarding in traditional papers. In Wiki there are no opinions, so one can't put what they feel in the heart makes the subject great. In traditional writing one can express themselves more which I think is more rewarding for a person.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

Single. I like writing by myself I don't have to worry about what other people have to input. I also don't have to worry about finding time to coordinate the papers.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Depending on the project my answer will change. If it is any English paper I prefer working individually, but if it were a science project I prefer group work.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes, in my Human Geography class. We did field exercises as a group. These were experimental projects rather than writing, which I like working in groups more. We all received the same grade for the assignment.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

In my experiences in college I would say it is fair. In high school I would say the grading was not as fair, because some people are lazier in high school than in college. In college people are more professional, and get their part done.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Some of the ideas may overlap. It is more difficult to put multiple papers into one major paper to be graded.

III. Internet Usage

13. Do you own your own computer?

Yes, I'm writing on it now.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

I normally use my laptop in my dorm. I use the computers in the Creswell computer lab and the SLC, but maybe only once a week

15. How much time do you spend on an average day reading and/or composing e-mail?

30 minutes at most.

16. How much time do you spend on an average day on the web?

Probably around two hours a day.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

School Research- definitely use the internet for this. If I have to use Wiki or other sites to research nearly all my assignments I will use the internet.

B. Idle curiousity/time-killing?

Time Killing- not a lot maybe ESPN to check the sports, but not much more

C. Entertainment, gaming?

Gaming- Never, don't internet game

D. Socializing (e.g., facebook)?

Socializing- Most of the time if I'm not dong work for school I am either on facebook or AIM. Both these things are very addictive. I will go as far to say that I am convinced that if facebook was never invented my GPA and many other students GPA would be much higher. Facebook is just bad, and I would also put it in the time killing category. When I'm bored I get on facebook and just look at random stuff.

E. Other?

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

Wow, I don't remember. Ever since I have needed the internet it has always been there. I kind of grew up with it. I can remember when the internet has caused problems in my life. The day the portfolios were due and Emma stopped working. It made a difference in my life, as it caused me to become extremely angry.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

Wiki is a good experience to any incoming freshman, because I doubt many people in high school have ever written on the internet like that before.

Student 18

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I found it very interesting, but I do not like the concept of a Wiki. It made me nervous to write in it because I was afraid of providing wrong information.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Not really either... it encourages me to look at Wikipedia more because I find the concept fascinating, but it does not affect how much I want to write in it.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I do not think I would cite information from Wikipedia. However, I think it is a good basis for information. I am likely to use it as an overview or starting point in the future.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

Yes, there is a difference. The information on Wikipedia is very basic, and provides little to no examination of the subject; it only provides a presentation of the facts. Galileo articles were much more in depth, and provided many deeper examinations of the subject.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would agree with his opinion and respect his instructions.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

False. I think it is more difficult to write in a wiki. I think this because in a wiki, you only provide basic information. You do not examine the subject. Assuming the paper is more than 1,000 words, it would be difficult to write in it because it is hard to prove a lot of information without examining the subject, as you would most likely do in a paper.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

True. It allows you to investigate the material further than you are able to on a wiki.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

Traditional paper format. I find them more beneficial, I think I would learn more and it would be easier to write a traditional paper because there are not confliction opinions, and one person does not end up getting stuck with all the work, while another person does very little.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Individually, where each student gest his own individual grade.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes. I had to develop a presentation on cognition for a class called Learning to Learn this summer. We had to investigate the difference in cognition between males and females and provide evidence for any side of an argument that may appear. The presentation grade was the same for each group member, and we turned in a paper the determined our individual grade.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No, because one to two people usually end up doing more of the work than the rest of the group.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Traditional projects go more in depth on the material, group projects usually investigate only at surface level.

III. Internet Usage

13. Do you own your own computer?

Yes

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

I use my pc laptop, located in my dorm room. Sometimes I use computers in the Russell Hall Computer Lab, which are pc desktops.

15. How much time do you spend on an average day reading and/or composing e-mail?

10 minutes

16. How much time do you spend on an average day on the web?

About an hour

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Yes- I use sites such as Galileo. For a paper or project requiring research, I will spend anywhere from 30 minutes to 3 hours doing research on the web.

B. Idle curiousity/time-killing?

More than I should-- probably an hour and a half each day.

C. Entertainment, gaming?

Almost none.

D. Socializing (e.g., facebook)?

Probably an hour (but this often overlaps with time killing in letter B). I look a lot at facebook and a program called livejournal.

E. Other?

None.

18. Tell the story of the the first time you used the internet OR the first time internet usage made a difference in your life.

I first discovered the internet through AOL when I was about 12. My mother set up an account for me. I found it fascinating to talk to my friends on the internet because they were accessible anytime I wanted them. I e-mailed frequently and talked over instant messenger frequently. I caught on to the internet pretty easily, since I had been using a computer since my early youth. I searched a lot of web pages about music, news, and various other things that a pre-teen would search.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I think it is a useful thing to introduce every student to. I think it is also useful to discuss the pros and cons of a wiki for an English assignment. I like it that the professor approached the assignment with a neutral bias and did not expect his students to like or dislike the concept of a wiki.

Student 19

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

As a whole I thought that writing on Wikipedia was a new and exciting experience, but at the same time it did not really improve our writing any because we were not critiqued on it. Even if someone edited your passages, you still would not know if it was a middle schooler surfing the internet and changing it for fun, or whether it was someone who was skilled in the subject that we were writing on.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Neither

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

It is a valuable source for personal information (to find out about movies, etc), but I would not cite it as a source.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

Yes there is definitely a difference. Galileo is not a free writing database; you have to write factual information.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would agree that it may or may not be a reliable source.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

True, you have to develop a central theme, in WIKI you can just add bits and pieces.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

I don’t think either is more/less rewarding.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

I think a combination of both is good. I think its important to learn to work with others, but at the same time you have to know how to complete the assignment without help.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Individually.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

No, we were given the option and I chose not to.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No, because some people put in WAY MORE work and others only join the group to get out of the work.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Group writing is more of a non-opinionated essay, because there are so many opinions that you usually cannot find one to agree on, so you have to explore all of the different views.

III. Internet Usage

13. Do you own your own computer?

Yes

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

Laptop, on my desk, medion

15. How much time do you spend on an average day reading and/or composing e-mail?

10 minutes

16. How much time do you spend on an average day on the web? 30-45 minutes

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Yes, google, dictionary.com (time depends on project i have due)

B. Idle curiousity/time-killing?

Yes, facebook, shopping online (10-50 min)

C. Entertainment, gaming?

Yes, yahoo games, TEXT TWIST (every three days or so for 30-40 min)

D. Socializing (e.g., facebook)?

Yes, Facebook (check it everyday, but only stay for more than 5 minutes if I get addicted)

E. Other?

No.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I do not remember the first time I used the internet, but it was definitely dial-up and it took forever, all of my friends in middle school used AOL Instant Messenger.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

My final thoughts are in #1. Other than that, I do not really think that it is a great thing to use because the students do not get enough feedback and even if they do, it is possibly not reliable. Enjoyed it!!!

Student 20

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I thought it was an enjoyable experience and I learned a new way to write...unbiased.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Encourages and discourages because you want to show people that you are professional but you do not want to embarrass yourself.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I believe it is valuable but not always credible. I would like to cite it but I am not sure if someone would not take it seriously.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

I believe the content is very similar but Wikipedia is posted publicly and can be false or biased.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would understand because some instructors may see the site as false and not credible.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

True, because your assignment has the chance to be read by millions of people as opposed to your professor. You could offend others and not have the ability to express yourself freely.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

True, it is more rewarding to write a good wiki paper because you can show it off and getting positive feedback from people whom you have never met and who could possibly be experts on the subject is very rewarding.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

A traditional paper because I feel I am able to express myself better when it is one on one as opposed to a group project where others may feel differently.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Group projects because I can get away with being lazy. Sad but true. Most people would probably have different reasons.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

All the time in high school. The ones I can remember are from math classes where we are in a group and we must learn a math technique and have to teach it to the class. We all received different grades based on effort.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No because some people may put forth more effort but it is hard to determine that.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Amount of effort. The group project may turn out great but you may not get each member's true feelings.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them,

what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

My room, Russell lobby, Me, UGA desktop.

15. How much time do you spend on an average day reading and/or composing e-mail?

5 minutes

16. How much time do you spend on an average day on the web?

one hour

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

yes 10 minutes+ depending on the assignment

B. Idle curiousity/time-killing?

yes 10 minutes

C. Entertainment, gaming?

yes (music)10 minutes

D. Socializing (e.g., facebook)?

yes 30 minutes

E. Other?

no

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

The internet has made a very big difference in my life since I came to college. I never realized how much I would need it.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment. I enjoyed the assignment but it made me nervous.

Student 21

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I think it's a creative idea allowing for a flexible reference in an ever changing world.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Neither

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

Yes, I actually used wiki as a reference this semester.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database?

If so, can you characterize those differences? Yes, Galileo has papers from numerous articles exploring different perspectives.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would understand because wiki is not a definite reliable source, anyone could put anything in there.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

No, I think wiki is harder because you have to concentrate on staying neutral and sticking to facts.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

I think it's more rewarding to write a traditional paper because you are able to express your own ideas.

III. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

Single because there’s less criticism if your paper is not great.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

I prefer individual because it’s to difficult to try and coincide everyone’s schedules.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Not in college yet.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No, not really.

12. What do you see as the main differences between group writing projects and traditional writing projects?

None, either way you are only adding facts.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

Room, laptop, me.

15. How much time do you spend on an average day reading and/or composing e-mail?

1-2 minutes.

16. How much time do you spend on an average day on the web?

10-15 min.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Yes, Galileo, time depends on the assignments.

B. Idle curiosity/time-killing?

Yes, facebook, 5 min max

C. Entertainment, gaming?

none

D. Socializing (e.g., facebook)?

Myspace and aol, 10 min

E. Other?

None.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I have no idea.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I liked getting out of the traditional English environment and experience something new.

Student 22

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

When I first found out that we were going to be writing on Wikipedia, I was somewhat puzzled. I did not know how writing on an online encyclopedia would benefit me as an English 1101 student. I did however, find it to be somewhat interesting and could not wait to explore the site.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Writing for Wikipedia actually encourages me to write because I find it to be extremely interesting for other people to edit my work. I like to look at the revisions and see where my writing lacked information or how I can better convey it.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I would not necessarily say that Wikipedia is a valuable resource for me considering the very important detail that anyone can edit the information found on the site. If I were to use Wikipedia as a resource, I would first have to make sure that the information is correct. To me, it seems like a waste of time because I feel like I would be researching information that is thought to have been correct. I do not think that I would be likely to

cite it in my research in the future.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

Well, I am not too familiar with the Galileo database. If anything, I would say that the content on Wikipedia might appear to be more subjective than that on Galileo for the simple fact that anyone can edit the content on Wikipedia. I do not think that I can fully answer this particular question because of my unfamiliarity with the Galileo database.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

If my instructor were to forbid me from using Wikipedia as a source in a paper, I would not disagree with him. If I were the professor, I would not want my students using information from a source that may be inaccurate. There are too many risks involved and most of the time, students fail to identify false information. They then use this false information in their paper which pretty much gives the paper no credibility.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

This statement is false because I feel that when writing in Wikipedia, you have to write for the general public. By doing so, you have to ensure that all your information is correct and unbiased. Most importantly, you have to be extremely careful not to include any

information that would offend others. However, when writing a traditional academic paper, one may be reluctant to take these aspects into consideration because they are only writing for themselves and the professor.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

I find this statement to be false because I find writing in Wikipedia to be more rewarding for the simple fact that others can review and edit your work. As stated before, I find it to be extremely intriguing for others to be able to actually edit my work in order to make it better. Basically, I like when I have more than one criticism about my papers. Also, when writing in Wikipedia, you have to be certain that the information you input is correct or else someone might decide to delete it later on. I feel that there are a lot of guidelines to follow when writing in Wikipedia as opposed to writing a traditional academic paper, where the only guidelines the writer may be taking into consideration is those set forth by his/her professor.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

In future English classes, I would prefer to write on the traditional paper format rather than a group. I feel that multiple authors only makes completing a designated task all the

more confusing than it really has to be. When completing the traditional paper format, I seem to perform much better than working with others. To me, writing as a single author makes writing much more interesting than having to collaborate with others in order to effectively convey information.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

I prefer to work individually, where each student gets his/her individual grade. The reason being is that I have found people, when working in groups, to slack off. I do not like having to do all the work or worry that the work someone is doing may be inaccurate. At least when I'm working by myself, I am certain that I will work very diligently, earning the grade that I truly deserve.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

In a University Orientation course that I am currently taking, we were studying a unit in History. My professor separated the class into groups of four students. Each group was appointed a topic. We were graded on how well we took notes on the topic and reported it back to the class. I did feel that some of my group members were slacking off or failed to work to the best of their abilities. As a result, the group received a "B." I did feel that we could have received an "A" if we worked together and put forth that extra effort.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

I really do not think that assessment in the group writing project (everyone gets the same grade) is fair because of the simple fact that everyone does not contribute the same amount of effort into the project. When one student may be pouring out their heart into the project, the other one may be slacking off. It is not fair for both of them to receive the same grade because they are both in the same group. If anything, the professor should grade each student in the group according to their contributions to the project.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Group projects require collaborating with your group members in order to successfully complete the assignment whereas in traditional writing assignments, collaboration is not really needed as much, considering that you are working as an individual. The only positive aspect of Group projects is that, as a writer, I might become exposed to a larger quantity of ideas, as opposed to working as an individual, where the only ideas that I will become exposed to is the ones I come up with.

III. Internet Usage

13. Do you own your own computer?

Yes, I do own my own computer.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

During a normal day, I use my laptop (Dell Inspiron 4150 with Windows XP) which is located in my dorm room. When typing long documents, I like to go to Russell Hall's (my dorm) computer lab where I use their desktop computers (Dell with Windows XP). I really do not like typing long on my laptop because it begins to make me get a little nauseous.

15. How much time do you spend on an average day reading and/or composing e-mail?

On an average day, I spend a minimum of an hour reading and/or composing e-mail.

16. How much time do you spend on an average day on the web?

On an average day, I spend a minimum of three to four hours on the web.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Spend probably thirty minutes to an hour daily. I usually arrive at the site via search engines such as Yahoo and Google!

B. Idle curiosity/time-killing?

Spend probably two hours daily. I usually use America Online Instant Messenger to talk to my friends over the internet. I also use this time to look at online pictures that my friends may have posted.

C. Entertainment, gaming?

D. Socializing (e.g., facebook)?

Spend probably one hour daily. The only socializing I do is through facebook.com. This site is extremely addictive to me.

E. Other?

I often spend around ten to forty minutes daily on ebay.com, just searching around for good prices for items.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

The first time I used the internet was when I was in Elementary school, of course, in New York City. This happened at the local public library. I became so fascinated with it to the point that I made daily appointments to use the computer in thirty minute increments. At this time, my family did not own a computer. I use to do a lot online such as write friends, chat, play online games, look up cheat codes for my video games, and print out amazing pictures. From that point on, I knew that the internet would become my new best friend.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

Wikipedia, to me, has been a wonderful experience in regards to writing in it. I find it to be extremely intriguing for others to be able to comment or better yet, make revisions to

your work. This may be for the best or worst. It is also interesting to view a page and figure out where new information could be best used. I am totally satisfied with writing on Wikipedia this semester. However, I still stand by not using Wikipedia as a source for the mere fact that anyone can go online and edit the information posted.

Student 23

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I feel that Wikipedia is a good way to expose my writing to the criticism of others. Although some of it may be insulting, I can learn from it and improve my writing.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

It encourages me to write so I can determine my strengths and weaknesses in my writing.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

Yes, especially the film pages. The text is very informative. Most likely I will use Wikipedia in the future for other papers.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

I feel that Wikipedia pages are a little more biased and maybe more inaccurate since anyone can post text.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I most likely wouldn’t have a problem with it since there are so many other sources out

there that enough could use.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

True. A wiki is much more broad an allows for different styles of writing while a paper is much more limited.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

True. It is probably more rewarding because I put more time and effort into a traditional paper.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author → multiple reader) or an traditional paper format (single author → single reader)? Why?

A traditional paper format, because when working in groups, the work load is rarely evenly split.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Individually, because the work of each student is reflected in his or her own grade.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes, I had to do a campaign project for government. The teacher graded each group member individually.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

Not enough, because one person may do less work than another and still get the same grade.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Group projects, again, may result in unequal work loads.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

I use my laptop everyday.

15. How much time do you spend on an average day reading and/or composing e-mail?

15 minutes.

16. How much time do you spend on an average day on the web?

An hour.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Yes. About 30 minutes to an hour.

B. Idle curiosity/time-killing?

Yes. About 15 minutes.

C. Entertainment, gaming?

No.

D. Socializing (e.g., facebook)?

Yes. About an hour.

E. Other?

18. Tell the story of the the first time you used the internet OR the first time internet usage made a difference in your life.

The first time I used the internet was when enough was in elementary school and I did research for a project on George Washington. One of the requirements was that we had at least one internet source.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I think it is a good experience and can improve the writing of people.

Student 24

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I have really enjoyed working on Wikipedia this past semester. At first I was nervous about the concept of the wiki, but I have learned a lot.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Writing on Wikipedia does not encourage or discourage me to write. I only wrote on Wikipedia for the necessary assignments. Besides those I will probably not write on Wikipedia, but may go back and look at what others have written

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I do feel Wikipedia is a valuable resource. A lot of good information can be found on the different pages. It is possible I will later cite Wikipedia for another assignment

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

Most of the information on the Wikipedia pages is completely factual like Galileo, but sometimes you might find someones opinion or a paragraph that might be a little bias.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I could understand why they might forbid us to use it because not all the information we find could be completely true, but Wikipedia is a helpful and easy source if you are doing research

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

False. I find it easier to write the traditional academic paper because in the paper you can say everything you know about the topic. On the wiki, I have found most of the time, but not always, the information is already there on the page and you can only add small bits and pieces.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

True. I feel it is more rewarding writing your own academic paper because all of the information is your owns and in your words, you are not adding to someone else's work.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

Not sure I understand the question, but if I do then I think I would like multiple authors to multiple readers. Here you have more information to work with, also you have others opinions.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

I enjoy working with others, but if we all get the same grade then I would most likely prefer to work by myself. I know what I am capable of and when I receive the grade, I know that I earned it. Sometimes working with others can be beneficial, but you never know when someone isn't going to do their part and your personal grade has to suffer.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

In high school we used to do group projects. Most of the time we would all get the same grade or close to it. In my experiences the teacher has asked what exactly did we contribute to the project and others had to agree to it. Sometimes we would also write confidentially how much the others contributed and if we think they earn the same grade as us

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

I do not think it is far. Most of the time one or two get stuck with the work, while the others barely do anything yet still get the same grade.

12. What do you see as the main differences between group writing projects and traditional writing projects?

In group writing you have to collaborate everyone's ideas into one and also find the time to get together to work on it. On your own, you can write what you want and be fully satisfied in your work.

III. Internet Usage

13. Do you own your own computer?

Yes, I own a laptop at school and a desktop at home.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

At school I use my laptop in my dorm room. At home although I have a desktop, I find myself using my laptop most of the time just because it is most convenient.

15. How much time do you spend on an average day reading and/or composing e-mail?

All together I probably spend 2-3 hours checking/writing emails.

16. How much time do you spend on an average day on the web?

I spend about 3-4 hours on the web a day.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

I do most of my research on the web because it is easy access. I spend a couple hours a day researching different topics. I do not have one particular site, most of the time I google information.

B. Idle curiosity/time-killing?

Sometimes I spend about an hour looking at store websites for shopping purposes.

C. Entertainment, gaming?

I do not spend much time on the computer for entertainment.

D. Socializing (e.g., facebook)?

I use my computer a lot to socialize. I do this through facebook and am always signed on to my AOL Instant Messenger. Also, I email a lot.

E. Other?

None.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I do not really remember the first time I used the internet. I know I was young, in elementary school sometime. I have found the internet to be very useful. Whenever you have a question or want to find something pertaining to whether, shopping, personal socializing, or research information, it is all right there at your fingertips.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I enjoyed writing on Wikipedia. The main time I wrote on the site, I created my own page

for a film. The experience was new to me, but very easy to use. I also like the concept of the wiki pages and how anyone can add what they like/or take something down. I think this makes for a better page than something you might find on Galileo or something.

Student 25

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

I had a very positive reaction to writing on Wikipedia. Personally, I felt it gave me a chance to really write to a huge group audience rather than just to the teacher. I felt that this gave me the chance to show off my knowledge of a particular subject and be open to criticisms. However, I felt that because I didn't get any feedback, the assignment didn't help me very much at all. No one commented or changed any of my work that I posted which didn't allow me to improve, and also, our class never received any feedback from each other or our teacher. I would like to see some corrections or comments in general or even just a simple grade. I felt that although Wikipedia is a very valuable source, our class as a whole really didn't use it to its extent.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Wikipedia definitely encourages me to write. Not only does it encourage me to write, but also it forces me to write with credibility as an author. It doesn't allow one to BS or beat around the bush because someone on Wikipedia will be out there to change something no matter what. It also forces one to write deeper about a subject rather than just scratching the surface because Wikipedia forces you to go into specific areas about a topic.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the

future?

Wikipedia is NOT a valuable resource, and I would not use it as a credible source. The reason for this is because people are really able to put down anything they want about a specific topic even if it doesn't hold any credibility at all. However, don't get me wrong, there is plenty of credible and valuable information out there, but as a whole, one truly can't trust any of it. That feeling of security isn't there for me, and for this reason, I wouldn't use Wikipedia in one of my papers.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

YES, there is a huge difference. First off Galileo is a credible and valuable source that people all over have used and heard about. Wikipedia on the other hand could be written by a twelve year old who might not know anything about a subject and just put it down for the hell of it. Until Wikipedia starts enforcing credible writers and researchers, it will never be as credible as Galileo. Galileo filters searches to get to the good sources and excludes the "junk" out there.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

Personally, I would find this a very intelligent idea. If I were a teacher, I would never let students use Wikipedia just because anyone can be writing what you read. It is up to the reader to determine the credibility rather than the website which I find weak. A teacher not allowing students to use Wikipedia is a very smart idea, at least for now.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

This statement is FALSE!!! The reason it is false is because in an academic paper one is able to BS around a topic and write random stuff that doesn't necessarily go along with the subject. However, on Wikipedia, one is FORCED to write more credible stuff because they have to write in specific areas and getting more down is much more difficult when focusing in a specific area. In a traditional paper, there is much more room to maneuver about where Wikipedia is a much smaller area.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki. Why?

FALSE FALSE FALSE!!! It is much more rewarding to write a paper in a wiki because it is for a much broader audience. If one writes a solid paper in a wiki, it feels as if you have accomplished something on a much bigger scale. You feel as if you have mastered something or a topic. This feels great!!!

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author --> multiple reader) or an traditional paper format (single author --> single reader)? Why?

I would prefer to write in a GROUP and have multiple readers. The reason is because I feel that this way is much more valuable and much more realistic for the future. I know in

business, I will have to work in groups and will have multiple readers critiquing what I have written. So, I believe that the group setting will prepare me better for the future and allow me to experience this at a younger age. Also, all through high school I have written alone for one reader, and I am ready for something new.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

This is a very difficult question for me. I feel that I go both ways. The group project is more valuable for me, but I truly can't stand when everyone gets the same grade. It has happened to me multiple times where I do most of the work, but I get the same grade as the slackers that did nothing. So I guess I prefer to get individual grades and get graded on what I did.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes I have. However never in English. I took a business class in high school where we were given a topic and we had to present it in an organized way and persuade the class to think the same way as us. Also, I have done multiple group projects in Spanish this term. However, they were graded by individual grades based on our speaking ability and smoothness.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No I really don’t think it is fair because people have to be separated in certain ways and people aren’t equal when it comes to English as I have experienced.

12. What do you see as the main differences between group writing projects and traditional writing projects?

There are many more views. People are stubborn about certain things, so it is harder to get one main point across. Some people might want some things and others might want different things so they sometimes will not flow together well.

III. Internet Usage

13. Do you own your own computer?

Yes, I own my own computer.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

I use my own laptop, which is in my dorm room. However, I sometimes move it into the SLC or other study areas so I am able to focus better.

15. How much time do you spend on an average day reading and/or composing e-mail?

Maybe at most one hour a day

16. How much time do you spend on an average day on the web?

Probably between 1 to 2 hours on the web a day.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

I do school research, however not much at all maybe 20 minutes a day

B. Idle curiousity/time-killing?

Time killing is a majority of it. Maybe about an hour or more. Facebook!

C. Entertainment, gaming?

Entertainment about 30 minutes. I play games and such. Super Text Twist is a good one and EDUCATIONAL!!!

D. Socializing (e.g., facebook)?

Yes this is the one. I do about an hour of facebook a day or so. Its entertaining and social.

E. Other?

I look up sporting news, games, events. Things of that nature.

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

The first time I used internet would have to be when I was doing research for my earlier education. I think it was about sharks. I did a project on the Carpet Shark and had to research this shark and do a presentation about it. It was crazzzzzzy!

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

Wiki is honestly very useful and effective as a whole. It opens peoples' eyes which is very valuable for the future. I am a proud supporter of what we did in class this term and believe everyone should use it and experience what it has to offer!!

Student 26
No data.

Student 27

I. Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

For me, writing on Wikipedia was a positive experience. I admire the concept and plan to use the site in the future.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

Neither

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

Wikipedia is a valuable source for basic information, but I would not cite it for my own research.

4. Is there a difference between content on Wikipedia and that which you would find on a Galileo database? If so, can you characterize those differences?

No.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

It would not be a big deal to me.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

True- I would be scared of my own grade and what the professor might think.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a

traditional academic paper than in a wiki. Why?

False- I would like to be criticed by thousands of people who view my work.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author → multiple reader) or an traditional paper format (single author → single reader)? Why?

Traditional Paper format because I would feel accomplished by doing the work by myself.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Individually

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes; the project was to explain a newspaper article. Everyone got the same grade.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

Yes

12. What do you see as the main differences between group writing projects and traditional writing projects?

Traditional writing projects gives more back to the individual- the paper is orginal

thoughts of one person.

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

My own Dell Laptop in my own dorm room.

15. How much time do you spend on an average day reading and/or composing e-mail?

30 minutes

16. How much time do you spend on an average day on the web?

1 hour

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Yes- 10 mintues on various sites

B. Idle curiousity/time-killing?

No

C. Entertainment, gaming?

Yes- I play video games on addictingames.com

D. Socializing (e.g., facebook)?

Yes- I spend at least 10 minutes on facebook everyday.

E. Other?

No

18. Tell the story of the first time you used the internet OR the first time internet usage made a difference in your life.

I was 12 when I first used the internet. I checked the score of a basketball game and I felt like the Internet was such an amazing invention.

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I like the idea of a wiki, and I use the sight when I need basic information about anything.

Student 28

Thoughts on Wikipedia

1. What is your general reaction to writing on Wikipedia?

At first I was hesitant about how difficult it would be to know what to include on the wiki page I was working on, and what to leave out. However, after the first couple days of reading and practicing how to use wiki, I found it to be just as easy as any other paper.

2. Does writing for Wikipedia encourage you to write, discourage you to write, or neither?

I would say it encourages me to write about the things I am passionate about. If I read on the Good Will Hunting page something that I didn't feel fit or flowed well, I changed it or re-worded it in a way I felt was more appropriate. Even though I was discouraged to write when I saw how developed my wiki page was, it didn't take long to get a feel of what I could personally write about on the page.

3. Is Wikipedia a valuable resource for you? Would you be likely to cite it in your research in the future?

I think I would use wiki to get a general idea about a topic I was considering researching. When I do research I usually concentrate on facts which come from a published, reputable source. I am not so sure I would cite wiki in a research paper, but I would use it for fundamental research.

4. Is there a difference between content on Wikipedia and that which you would find on a

Galileo database? If so, can you characterize those differences?

To me, wiki is easier to navigate. So many times with Galileo I have a hard time remembering where I found certain sources. With wiki, it is so much easier to just type in my subject and find what I am looking for. I also like how Wikipedia has pictures and constant criticism and updates. Galileo may lead you to dated information on your topic while wiki is virtually being changed nearly every day.

5. If an instructor were to forbid you from using Wikipedia as a source in a paper, what would you think?

I would expect the instructor to give me specific reasons in MLA why I couldn't, and hopefully their opinion of why research elsewhere would be better. With wiki it think it depends upon what you are writing about and in what context.

6. True or False: If the assignment is the same number of words, it is more difficult to write a traditional academic paper than in a wiki. Why?

False, because with wiki there are specific headings such as plot, box office, trivia, etc. that require you to break up what you find about the subject and make it relevant. Additionally, there is usally information already on the wiki page. This makes it hard to get just as many words on the page as you would in a traditional paper and still maintain relevance and exclude your personal opinions or conclusions. With a traditional paper you may only concentrate on a very specific theme on the topic, and your opinions and conclusions are more accepted.

7. True or False: If the assignment is the same number of words, it is more rewarding to write a traditional academic paper than in a wiki.

False, I don't think either is more rewarding, I just feel it is easier to stay on topic with a traditional paper. I think writing on wiki can give someone just as much insight and understanding on a topic as writing a paper can.

II. Thoughts on Group Projects

8. In future English classes, would you prefer to write on a group project (multiple author → multiple reader) or an traditional paper format (single author → single reader)? Why?

I would rather write alone and not in a group for multiple reasons. One reason is social loafing, students tendency to put less effort into an assignment when they share work with others. Additionally, writing independently gives me freedom to edit and revise my paper any time I want.

9. Do you prefer to work in group projects, where each student gets the same grade, or individually, where each student gets his/her individual grade?

Individually because it is easier to see what I need to improve on. In a group it is hard to tell what you attributed and how your efforts are reflected in the final grade.

10. Have you been asked to work in group projects in classes before? If so, where, what was the project, and how was it graded?

Yes, in Womens Studies this semester. We did a project on womens health and different issues surrounding womens bodies. It was graded by what we turned in and how well we each researched and pulled together our 45 min. presentation. After the project we were given evaluation sheets about how much we felt we contributed, as well as if any one in the group didn't contribute enough.

11. Do you think assessment in the group writing project (everyone gets the same grade) is fair?

No because one person could do all the work and the others would receive credit for not doing anything.

12. What do you see as the main differences between group writing projects and traditional writing projects?

Traditional projects encourage independent thought and conclusions, while writing in a group may make the majority exclude one person's individual ideas. Also, I think writing individually is more beneficial to the student because their work is evaluated on their performance, not a groups(which I feel can be vague).

III. Internet Usage

13. Do you own your own computer?

Yes.

14. What computers do you use during a normal day (where are they located, who owns them, what kind of machines are they [e.g., laptop/desktop, mac/pc, etc.)?

My Dell laptop at my apartment which I bought with my savings before college. I also work on the computers at the SLC on the third floor to check my e-mail, grades, and start on assignments between classes.

15. How much time do you spend on an average day reading and/or composing e-mail?

About 30 min to an hour.

16. How much time do you spend on an average day on the web?

About two hours.

17. Do you use the internet for any of the following, and if so, please give a description of how long you spend on these activities each day, and perhaps what sites you visit:

A. School research?

Only certain times of the year, probably 3 to 4 hours a day. Usually through _loomin or search engines like dogpile and askjeeves.

B. Idle curiosity/time-killing?

About 1-2 hours a day; whatever I am in the mood for, the food network for recipes, the knot to look dresses, ebay or _loomingdales for antiques and jewelry and clothes.

C. Entertainment, gaming?

None really, maybe text-twist on www.coffeebreakarcade.com every couple of weeks.

D. Socializing (e.g., facebook)?

Haha, every day at least once, but usually never more than thirty minutes. I don't do instant messenger or anything like that either.

E. Other?

Probably random searching on health webcites, usually researching new drugs

and all things pertaining to my health on webMd

18. Tell the story of the the first time you used the internet OR the first time internet usage made a difference in your life.

The first time I used the internet did make a difference in my life. I hadn't ever used it until my family got AOL and I could instant message my middle school friends. I guess it was the cool thing to do, the old school facebook. You better believe I was on it every night and put off my homework for at least an hour to IM my crush, those were the days...

19. Please offer any final thoughts you have about the experience of writing in a wiki for an English assignment.

I liked it overall. I am really glad we didn't have to write a certain amount because I think that would have changed the overall assignment in a negative way. By the instructions we had, I felt the experience was overall beneficial and I have already used it just to look up certain other movies out of personal interest. I think it is a good source to know about, however you choose to use it because if you are passionate enough to look up a topic, you most likely will feel compelled to write about it on wiki.

APPENDIX C

Transcript of Focus Group

Moderator: Anita DeRouen

Date: Friday, December 9, 2005
Time: 11:00 AM
Place: 251 Park Hall, University of Georgia, Athens, Georgia, USA

Editor's note: In the fall of 2005 I taught two classes of First-Year Composition at the University of Georgia. These classes involved the experimental use of wikis in the composition classroom, as more fully laid out in chapter four of the attached dissertation. The following transcript is of a focus group session which was conducted by another instructor in the English department, Anita DeRoeun, who asked questions of the students prepared by Robert Cummings.

DeRouen: Alright, so this is Anita DeRouen, and we are here for an English 1101 Focus Group for Robert Cummings on um ah the focus group is discussing wiki and members of the class are here. They've all signed in on a sign-in sheet, um, so that you'll know who was here for this day. And we'll just begin with the first question. So.

Question: What are your general reactions to writing on Wikipedia?

S1[9]: It was fine (fun?).
S2: It was different. I'd never done anything like that before.

DeRouen: Okay.

S3: It kind of made me nervous. 'Cause, you know, already you've had a paper writing for your teacher to look at it, and you've got, you know, people also who can read it, critique it, or anyone can read it, or delete it, like they did mine . . .

[laughter]

S4: I thought it was like challenging to try to find a way to integrate, what, um, you've already written, 'cause we turned in our movie paper first, and the next assignment was, like, throw something on wiki. And our movie paper was kind of like well-developed, and it was kind of hard to integrate what we wanted to put in. And then as soon as you would put it in, someone would change it.

S4: It's harder to write for a really wide range of audience. Like, it's not only your teachers or peers, but it's also everyone else who had access to the site. And, also with the technicality of the site, it's hard. When I was doing my film page paper, you have to put it in the same format that they do, and some times it doesn't work. And sometimes that takes a while to get used to, so that's why it's difficult.

S5: And also, your writing, you get to be kind of like an expert about it, which is also nerve-wracking because you've got people who might dedicate their entire lives to this one movie. Like if you're writing about Star Wars, people could get really offended if you write something wrong about it.
S6: You're [cough] by it.

DeRouen: Great. Okay, did writing on Wikipedia encourage you to write more on your subject? Or write less on your subject?

S1: Well, for me, for my film paper, it encouraged me to write more, because as I go

[9] Responses are indicated as "S1" for "Student 1," or "Student 2," etc. The numbering will start a new from the response to each question, so there is no way to connect speakers numbered in one response to speakers numbered in another response, i.e., we will not know if "Student 1" in response to the first question is speaking as "Student 3" in response to the second question. Even though a sign-up sheet was used to assign participants extra credit, student anonymity was maintained – no names are recorded on the audio tape – in order to encourage candor.

through and after I finish my project, I want to add more things to it whenever I find out anything that might be interesting, if there's pictures, facts, or anything of the sort.

S2: I thought the assignments were different, because the Wikipedia, there was a lot of factual stuff. And I felt like the movie page assignment, or the movie assignment was harder, was based on abstract thought, or comparing the different elements of film, to what you felt were important themes in the movie, and when you got to the fourth assignment it was all based on facts, like awards they've won, or characters . . . there was some room for some abstract thought, or character analysis, but not as much as a film paper. It was different. It was a different kind of writing.

S3: I think too that if you're film page is already developed, you write less than you did in your paper. You have to kind of find the gaps in there, and there isn't as much room.

DeRoeun: There wasn't as much room on the . . .?

S3: On the page, to like, put in what you did in your paper.

DeRoeun: Anybody else? Thoughts on the amount that you wrote?

DeRouen: How is writing in Wikipedia like or unlike a "normal" English 1101 writing assignment?

S1: Well, within like a regular essay, there's a bunch of different topics you could do, and separate it all. It was more fun. It was a lot different. It was more unique that anything else we did.

S2: It was like real world writing. We weren't just writing for a teacher to grade it. So it was probably better . . .

S3: I know the nine o'Clock class did group assignments for it too. So it was like . . . it was using two different things that incorporated it into like what you might be doing in the real world, just like she said before, so that was also a little bit of a challenge too

S4: Also, everything is your original idea. You can't base your idea on someone else's thinking. You can't even quote them. So everything has to be original from you. So that was kind of challenging in a way.

DeRouen: At this point I need to stop and say something, so that everyone is aware: If I do anything that is strange, or if my face . . . I'm not angry, I can't show too much interaction in a sense because you're supposed to be able to speak freely. You should speak freely about your experiences in the class. Your instructor will not hear this tape until after grades have been posted. So speak freely . . . I'm not suggesting that you're not speaking freely, but you should feel free to speak, and say what you would like to say. Next question: Would you use Wikipedia as a source in academic papers?

S1: No. Because it's opinion-based, and people can say whatever they want to say, until someone else edits it. So I don't think it's a reliable source for academic-type research paper at all. As long as it sounds good they'll keep it until someone else decides to change it, so you're basically going off of other people's opinions all the time.

S2: But then before writing, the guidelines are that you have to write back, not just opinions . . .

S1: Well, that's what you're supposed to do, but of course along the way there are going to be some people who are going to write opinions, so it's pretty much up to you to research more than just depending on the wiki page, but also elsewhere to compare information.

S2: And there could be false information, like Mr. Cummings said about that one person? You have to be careful for that.

S3: Yeah, a lot of my other research papers, and academic things, we only can use articles from like published science -- or not like published for like – like for psychology, we had to get it from the American Psychological Journal, like certified, credible sources. I don't think Wikipedia falls under that.

DeRouen: Anything else on the assignments on Wikipedia, your responses to them, what you thought about them, how much you wrote?

DeRouen: Alright. Some, but not all, of you also wrote on World66, the travel wiki site? What were you general reactions to writing on this site?

S1: I had the same reactions, just . . . you're writing for other people to see, so you want to make sure it sounds interesting. But at the same time, everybody's conscious of the grade that they're going to get on it, so, I don't know, it was just like writing any other paper to me, just with more readers.

S2: I felt about the same. They put pressure on you, because people are able to criticize you on whatever they want. And sometimes they can go in there and . . . really bash you out. Harder.

DeRouen: How would you compare this to writing on Wikipedia?

S1: Compare what?

DeRouen: Writing on World66.

S1: They're the same.
S2: They're the same, but it made more sense because with traveling, you want to hear other people's experiences, and it makes more sense – just the basis of it.

DeRouen: It made more sense to do . . .?

S2: On the traveling one, because the credibility isn't so much of an issue, you just want to hear experiences and a person's insight.

S3: You know, Wikipedia's all fact and it's supposed to be an encyclopedia, but you're the person's experience [inaudible] most of the time.

S4: The World66 page didn't seem to be as well-developed as Wikipedia, at least for the few places I was thinking about writing about. I thought it was easier because you didn't have to compete with what was already there.

DeRouen: Anyone else? Would you use World66 as a source in an academic paper?

S1: No.

[laughter]

S2: I think so if you researched it and compared it to the fact they're on there and you found that they were true. I actually used it as a source in one of my papers and I found that lots of the facts were true because I looked at other sources and I think you could use it. But maybe not for a lot of things.

S3: So that's like checking the research of something that's already on there. So you have to research the research page that you want to use to make sure that the info is correct. So it's like, you're not really using it. You're just checking the facts and . . . it's pointless.

DeRouen: Okay, anybody else?

DeRouen: Would you use World66 if you were planning a trip?

S1: Possibly.

S2: Yeah.

S3: Can you elaborate? What is World66?

S4: We didn't do it.

S5: It was pretty much like the Wikipedia thing, but – you know that travel essay we had to write? It was like a place we had to travel to. And we posted something in that. It wasn't as big of an assignment as our last one, but it was the same concept.

DeRoeun: Alright. Any other thoughts on the World66 assignment?

DeRoeun: Alright. Now we're going to talk about writing in wikis generally. How did

you feel about people outside of class – other writers on Wikipedia – editing your work?

S1: As for me, I haven't really experienced other people editing my page yet. I don't know what it is like.

S2: Somebody didn't like mine.

[laughter]

S2: Actually the person who made the page didn't like what I added. So. . . . so I don't like it.

S3: I think that on the page if it's – like I said before – if it's really developed there isn't as much room and editing can be – someone can take away your work really easily because it might not flow with everything on the page because it's so far developed that it might just be extra and not really good or useful.

DeRoeun: Anybody else?

DeRoeun: Did writing in wikis help your writing development this semester? If so, how? And if not, where did it fail?

S1: It just depended on whether or not your page got revised or not. If they do, then you know what other people are thinking about your page. If they don't, then you don't have any feedback to base on for your next [stage] or to reflect on how your writing is for other people.

S2: I thought that it was a new concept in writing because we had to write for *a lot* of other people to read it, some who might be more knowledgeable than us.

S3: I don't think that it really helped that much for me, because it was writing in specific areas, like small little fields and I'll be writing a lot of essays in the future and I don't think it will help me put together essays as well.

S4: I thought it helped me write in a more non-biased way. You really had to be an expert on the topic you were writing about, so it taught me that you really had to research. If you were writing on something specific you had to research it to be an expert about it before you can post it.

DeRouen: Do you feel as if you received enough advice from your teacher to prepare you for the experience of writing in a wiki?

S1: Yeah, because before we wrote on the page he gave us the guidelines as to what the site was expecting. He wanted us to write to him [about] what we thought the page meant and what we were supposed to do and then he'd lead us through the process, so that was helpful. Very helpful.

S2: I think he did a good job because he showed us . . . he made us do a lot of examples and go to different pages to see how it was done.

S3: And he set up a practice page. He used the same wiki format and had us practice in class before we actually made our submissions, how to do it and how to make comments.

S4. From day one he was introducing Wikipedia to us and throughout the whole semester showing us the [THX1138] page – even when we didn't really know what it was about – and at the end we figured it out and did that whole project on it.

DeRouen: How about the non-technical aspects of it? And that experience?

S1: What do you mean by non-technical?

DeRouen: For example, the experience of having someone else edit your work? Did you talk a lot about that in class? Was that something you felt prepared for?

S1: I would say we were prepared for people changing our work – not to take it personally.

DeRouen: Did you receive enough feedback from your instructor about your writing in the wiki?

S1: Not yet, because we haven't gotten our grades back. And my page hasn't been edited well and I don't know how frequently it has been viewed. I don't really know if I did a good job or not.

DeRouen: I saw a lot of head shaking. Is it just that you haven't been graded on that assignment yet?

S1: We jumped right into our portfolio so we kind of skipped that.

DeRouen: I'm going to read something to you and we're going to respond to each part. The First Composition Handbook states that the main goals of English 1101 are: students will write papers in and out class that include processes of discovering ideas and evidence, organizing that material, and revising, editing, and polishing the finished paper. Students will think critically so that they can recognize the difference between opinion and evidence, support an intelligent and challenging thesis, address papers to a range of audiences, understand the nature collaborative and social nature of the writing process, and demonstrate an ability to critique the writing of themselves and others. They will develop a sense of voice appropriate to the subject, the writer's purpose, the context, and the reader's expectations. Students will also understand how genres shape reading and writing, and produce writing in several genres. Students will compose unified, coherent paragraphs that develop topic sentences with detailed support, following the conventions of standard, edited English and MLA documentation. We'll take each one of these, and

ask if writing in the wiki helped you in reaching that goal. So, the first one ‘write papers in and out class that include processes of discovering ideas and evidence, organizing that material, and revising, editing, and polishing the finished paper” – did the writing in the wiki help you with that?
S1: I guess. We all treated it like a regular essay in terms of revision and process because we had different stages that we went through. First, adding information, then going back and fixing it a little, or in the end polish it.

S2: Especially with the World 66 [assignment] we wrote our essay first and then we [cough-- transferred it to the wiki?] had to do a lot of research thinking.

DeRouen: Okay, thinking critically so that you can recognize the difference between opinion and evidence, and so that you can support an intelligent, challenging thesis. How did the wiki help you in that regard? Or not help you in that regard?

S1: Well, in the wiki you’re supposed to report in facts and not give your own opinion, so that helped you.

S2: I don’t think it helped with the thesis as much because you could choose to only submit information to the trivia part of the page, which doesn’t have to do with the thesis on your original essay.

S3: There’s no one thing to prove throughout the [page] as in an essay where you state a thesis and prove it throughout your paper. In Wikipedia, [you’re free to write about] every different portion of the movie, whichever you want to concentrate on or devote your time to and sometimes they don’t all relate a theme or idea.

DeRouen: Address papers to a range of audiences – did Wikipedia help with this?

Group: Yeah.

DeRouen: Anyone want to expand?

S1: You’re writing for the whole world.

S2: You really had to become an expert on what you are writing about, and make sure you weren’t rambling. On Wikipedia most of the postings are to the point – not very long and elaborate. So you had to deliver good information in a short amount of space to a wide range of audiences.

S3: That was the best part of Wikipedia, by far, because any little thing you say can offend so many people.

DeRouen: You made a comment about language?

S1: Oh; Wikipedia is divided up into different languages, they have one for Italian, for

instance, so I'm just saying that the audience is going to be native speakers.

DeRouen: Understand the collaborative and social aspects of the writing process and demonstrate the ability to critique the writing of yourselves and others. Did the wiki help you with that?

S1: He asked us not to just add things but to change things that were already there and edit other people's work, so we had to critique other people's work.

S2: For my assignment, I wrote a paper on Tacoma [Washington] and then I looked on the page for Tacoma and found that it was very incorrect. I didn't think that there was enough information on that page, and so I went in and corrected it.

DeRouen: Did writing in the wiki help you to see writing as a social, collaborative process as opposed to a solitary process?

S1: Yes, because I've never done anything like that before [inaudible].

S2: It showed you that people also write outside of class. Like on subjects they're interested in, or that have no knowledge on. In in here, you're not doing the same thing that you're used to in class, like writing papers for the teacher or your peers – you have to write appeals to other people who are more knowledgeable than you are, so that was hard. It was like real world writing.

DeRouen: Develop a sense of voice, appropriate to the subject, the writer's purpose, the context, and the reader's expectation. Does the wiki help with this?

S1: Pretty much to be informative, giving out facts. You can't be biased or other people will see that.

DeRouen: Understand how genres shape reading and writing and produce writing in several genres. . . . Did the wiki give you a sense of different styles of writing or writing purposes?

S1: Yeah, it definitely did because we had to make sure that we could express any sort of opinion; it had to be completely neutral.

DeRouen: Compose unified coherent paragraphs that develop topic sentences with detailed support?

S1: You had to identify your topic and then just put in facts relating to it, just putting in pieces of information that fit into the specific category.

S2: When you were writing in the wiki you didn't have to worry about making things flow together like in a normal essay because you could just break it up into groups.

DeRouen: And finally: follow the conventions of standard edited English, and MLA documentation? Did the wiki help you with that?

S1: I don't think it really touched on MLA documentation for me because you didn't have to worry about citing sources, or at least I didn't because I didn't put in anything from other sources that needed citation.

DeRouen: How about the standard edited English?

S1: Well, you're just putting bits and pieces everywhere, so you're not really putting in anything solid, except for the travel wiki where we kind of put a paper in there. Ronnie wrote a paper for the movie "7." Me and my other partner just put bits and pieces in there so it really didn't help on the English part.

DeRouen: Did any of you get comments on grammar on your pages?

S1: Spelling errors and stuff. They just sort of rushed through and write whatever they wanted to do. They don't pay as much attention as we do [to form]. It's pretty much just their ideas and content, without much polish.

S2: I don't think it really helps much with any of the mechanics of writing because even if somebody edits your paragraph and changes what they think is an error, they might less informed than you and be changing something that is right, so you don't know if it is a good or bad edit.

DeRouen Would you recommend this class to another student based on the wiki component?

S1: Definitely.

S2: It exposes you to different writing environments.

S3: I think it was fun, but I don't think it really helped our writing.

S4: Are you saying if it was only a class in Wikipedia?

DeRouen: Would you recommend this class to another student because of the wiki?

S5: It changes it up a little bit because essay after essay gets a little monotonous.

DeRouen: I saw some "nos" so those of you who would not recommend, feel free to say why. . . Would anyone not recommend the course based on Wikipedia?

S1: I'd probably recommend it to my friends because it's easier and it's more fun, but it's not really too helpful.

S2: I wouldn't recommend it to someone who's not good with computers or does not like to work with computers because that's mainly what we did.

S3: I liked writing on line and getting feedback from everyone, so I guess I would recommend it. But I wouldn't necessarily say that Wikipedia [inaudible].

DeRouen: If you were selecting an 1102 course, and all other factors remained equal (the time of day, the ease of teacher grading based as represented in the key[10], etc.) would you select or reject a course based on the electronic writing requirement?

S1: Select.

S2: There's more variety. It's more interesting.

S3: I think it improves your writing because you're not as sheltered as [when writing for] just your class. It allows you to write to a big audience and I think that's much more valuable. That's why I would select it.

S4: I think it would just be more helpful in the long term just because everything is so geared toward the computer now – you have to do everything online, and later down the road you'll have that experience that someone else won't have.

DeRouen: Do you have any final thoughts about the experience of writing in a wiki for an English class?

DeRouen: OK, if you could change anything about this experience what would it be?

S1: Maybe start this earlier in the year, so that throughout the rest of the semester, we'd have more feedback and comments on our page.

S2: It wasn't good how we did all that and we didn't talk about it.

DeRouen: OK, thank you for your participation.

[10] At The University of Georgia, during the time this class was conducted, all instructor grades given were posted in aggregate format on the internet. Students were able to see how many "A," "B," "C," "D," or "F" grades an instructor had given for that particular course number over that teacher's UGA career. Therefore students could, and did, "shop" courses to by comparing how likely a teacher was to award higher grades.

APPENDIX D

Writing Assignments

Assignment 1 (Same Assignment for 9:05 AM and 10:10 AM)

English 1101

Fall Semester 2005

Essay 1: Writing to Report Information (First Draft 9/7)

Your first essay will report needed information to your audience. To do this, you need first to evaluate your audience. For whom are you writing? What type of information do they need? Of all the possible information they might need, what interests you? And what can you reasonably research?

We have read five essays in *Motives for Writing*. These essays have introduced a variety of subjects. You can continue to investigate one of these topics for this essay, or you can start out on an entirely new topic. With either approach, you will need to bring together two elements: a topic which interests you, and one for which your readers need to know more. You can start with something you know is of interest to your audience, and narrow your focus toward something original and interesting to you. Alternatively, you can start with something you know is of interest to you, and shift your emphasis toward a topic for which your audience needs more information.

Your essay will be at least 1,500 words long and will follow the conventions of MLA style.

Due Date:	Task
Monday, Sept 12	Audience Analysis Due (Assignment 1, stage 6)
Friday, Sept 16	Exploratory Draft Due (Assignment 1, stage 7)
Wednesday, Sept 21	Mid-Process Draft Due (Assignment 1, stage 8)
Monday, Sept 26	Concluding Revisions Due (Assignment 1, stage 9)

Assignment 2 (9:05 AM)

9:05 AM Class Essay 2: Description of a Place

Our next essay will be a description of a place. We will combine the format and rhetorical goals of a travel guide with your individual understanding of a place to convey to the reader the information necessary to visit the place, as well as establish a desire in the reader to visit. The place you select need not be an exotic location, or a tourist destination you have only visited once, though these kinds of places are not off limits. You just need to have enough familiarity with the place to describe it to others, offer some practical advice about getting there and what to do once you are there.

Most important, though, is arriving at an understanding of what makes this an prominent place in your mind, an then tranferring a sense of what makes it important to the reader. Here you need to strike a balance between the personal and the public: some places will be highly significant to us because a special family event, or events, occured there. You cannot entice the reader to visit that location based on how much fun you had there with people who are important only to you. You can, however, identify within your personal experience what is universal and applies to everyone. For instance, if you wanted to write about St. Mary's Georgia because you have vacationed there over the years with your family, then you would want to identify within that environment the key aspects of the location which helped make it a special place for your family, not with the idea that your reader will have the exact same experience, but rather with the hope that the special features of this place are universally appreciated.

As we have discussed in class, there are four key binary concepts which you need to address in the paper.

- Private and Public
- Showing and Telling
- Material and Abstract
- Visiting and Residing

First, as discussed above, you need to be aware of balancing the private and public concerns in your essay. You want to get in touch with what makes a place special to you, and let that idea motivate you. Alternatively, you need also to ensure that the reader shares some of your personal motivations, so be sure to identify what is universal within your private experience.

Next, be sure to combine the strategies of showing and telling within your essay. Consider how Margaret Cezair-Thompson places the reader in her shoes when she visits Jamaica -- by combining sites, sounds, and smells in the text (be sure to refer to the last page of the Jamaica reading for specific advice on this technique). But to set up the significance of these descriptive passages, she includes "telling" text which explains to the reader where she is, and even why what she is describing is important to her.

As we learned from reading Brooks's essay on suburbia, good essays about place combine a description and awareness of material reality with a more abstract or theoretical explanation of it. You need not develop a theory as complex and comprehensive as Brooks's, but you should share with your reader the idea that the physical characteristics of your place are representations of a more abstract idea, e.g., trash on the streets of Kingston, Jamaica, reminds us of its poverty.

Lastly, you need to appeal to readers who are considering visiting as well as those with longer term goals. You need not convince someone to reside in your place, but you do want to construct an awareness of the place that goes beyond satisfying immediate needs. Disneyworld is great place to visit, but its not a satisfying place to write about because its not a satisfying place to stay in for more than a week. Take the long view as well as the short.

Also, don't forget to use images. If you have a digital image of your place, what better way to show it?

Key Dates

Mon Sep 26 Journal about a place that's important to you. Post in <emma> as Assignment 2, Stage 1.

Wed Sep 28

Assignment Introduction and description.

Fri Sep 30

Before class today identify three published place descriptions in World66 Travel Wiki http://www.world66.com/. Post a rhetorical analysis of them in <emma> as Assignment 2, Stage 3.

Mon Oct 3

Before class today read essay by David Brooks: "Our Sprawling, Supersize Utopia"http://www.english.uga.edu/~cummings/Brooks_1.pdf. Re-read assignment handout. Write a text dialogue and post in <emma> as assignment 2, stage 2.

Wed Oct 5

Before class today identify three places for which you might consider writing a full paper. Write a paragraph about each place, identifying what would make it an interesting place to visit. Post in <emma> as Assignment 2, Stage 4. Reading: Jamaica http://www.english.uga.edu/~cummings/Jamaica.pdf. No text dialogue.

Fri Oct 7

Due before class: Exploratory Draft for Essay 2. Post in <emma> as Assignment 2, Stage 5. In-class peer response.

Mon 10

Due before class: Mid-Process Draft for Essay 2. Post in <emma> as Assignment 2, Stage 6. Post in World66 Travel Wiki http://www.world66.com/.

Wed Oct 12

TBA.

Fri Oct 14

Concluding Revisions Due. Post in <emma> as Assignment 2, Stage TBA.

Assignment 2 (10:10 AM Class)

10:10 AM Class Essay 2: Description of a Place

Our next essay will be a description of a place. We will combine the format and rhetorical goals of a travel guide with your individual understanding of a place to convey to the reader the information necessary to visit the place, as well as establish a desire in the reader to visit. The place you select need not be an exotic location, or a tourist destination you have only visited once, though these kinds of places are not off limits. You just need to have enough familiarity with the place to describe it to others, offer some practical advice about getting there and what to do once you are there.

Most important, though, is arriving at an understanding of what makes this an prominent place in your mind, an then transferring a sense of what makes it important to the reader. Here you need to strike a balance between the personal and the public: some places will be highly significant to us because a special family event, or events, occurred there. You cannot entice the reader to visit that location based on how much fun you had there with people who are important only to you. You can, however, identify within your personal experience what is universal and applies to everyone. For instance, if you wanted to write about St. Mary's Georgia because you have vacationed there over the years with your family, then you would want to identify within that environment the key aspects of the location which helped make it a special place for your family, not with the idea that your reader will have the exact same experience, but rather with the hope that the special features of this place are universally appreciated.

As we have discussed in class, there are four key binary concepts which you need to address in the paper.

- Private and Public
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First, as discussed above, you need to be aware of balancing the private and public concerns in your essay. You want to get in touch with what makes a place special to you, and let that idea motivate you. Alternatively, you need also to ensure that the reader shares some of your personal motivations, so be sure to identify what is universal within your private experience.

Next, be sure to combine the strategies of showing and telling within your essay. Consider how Margaret Cezair-Thompson places the reader in her shoes when she visits Jamaica -- by combining sites, sounds, and smells in the text (be sure to refer to the last page of the Jamaica reading for specific advice on this technique). But to set up the significance of these descriptive passages, she includes "telling" text which explains to the reader where she is, and even why what she is describing is important to her.

As we learned from reading Brooks's essay on suburbia, good essays about place combine a description and awareness of material reality with a more abstract or theoretical explanation of it. You need not develop a theory as complex and comprehensive as Brooks's, but you should share with your reader the idea that the physical characteristics of your place are representations of a more abstract idea, e.g., trash on the streets of Kingston, Jamaica, reminds us of its poverty.

Lastly, you need to appeal to readers who are considering visiting as well as those with longer term goals. You need not convince someone to reside in your place, but you do want to construct an awareness of the place that goes beyond satisfying immediate needs. Disneyworld is great place to visit, but its not a satisfying place to write about because its not a satisfying place to stay in for more than a week. Take the long view as well as the short.

Also, don't forget to use images. If you have a digital image of your place, what better way to show it?

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Assignment Introduction and description.

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Before class today identify three published place descriptions and post a rhetorical analysis of them in <emma> as Assignment 2, Stage 3.

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Before class today read essay by David Brooks: "Our Sprawling, Supersize Utopia"http://www.english.uga.edu/~cummings/Brooks_1.pdf. Re-read assignment handout. Write a text dialogue and post in <emma> as assignment 2, stage 2.

Wed Oct 5

Before class today identify three places for which you might consider writing a full paper. Write a paragraph about each place, identifying what would make it an interesting place to visit. Post in <emma> as Assignment 2, Stage 4. Reading: Jamaica http://www.english.uga.edu/~cummings/Jamaica.pdf. No text dialogue.

Fri Oct 7

Due before class: Exploratory Draft for Essay 2. Post in <emma> as Assignment 2, Stage 5. In-class peer response.

Mon 10

Due before class: Mid-Process Draft for Essay 2. Post in <emma> as Assignment 2, Stage 6.

Wed Oct 12

TBA.

Fri Oct 14

Concluding Revisions Due. Post in <emma> as Assignment 2, Stage TBA.

Assignment 3 (9:05 AM)

9:05 AM Class

Essay 4: Film Critical Essay

A film review is an article that is written for people who haven't seen a movie. It attempts to recommend whether or not they should see the movie. Conversely, a theoretical essay assumes that its audience not only has seen the film at hand, but has also thought a great deal about it. It assumes that the reader has a great deal of knowledge about specific films, movements in film, the careers of directors, etc. Your essay, the critical essay, is positioned somewhere between these two. For your essay you should assume that your audience is at least familiar with your film, but has not thought about it as extensively as you have. You might want to remind the reader about key themes or elements of the plot, but you do not need to dwell on repeating the film on paper.

What you do want to do is think about how the film works as a film. What is, in your mind, the most important aspect of the film? Once you have decided that (and that may take a while -- several viewings), you need to pay attention to how the film accomplishes conveying that most important aspect to its viewer. For instance, if you decide that the most important aspect of the film *Dead Man Walking* is its ability to strike a balance in between extreme positions in the capital punishment debate, then you might think about how the film does this: by presenting the foibles and mistakes of Sr. Mary Helen Prejean, by giving dialogue to both victims families and the criminal's family, and by balancing the un-sentimental dramatization of the state-sanctioned killing of a human being against reenactments of the crimes of the condemned. How does the film get its message across?

First, select the film you may want to write about. Choose a film as soon as possible from the list below that you can rent/access at the library for at least a week. Then, watch and digest the film.

Be prepared to watch this film several times, at least once before you begin writing in-class. THIS WILL TAKE A LOT OF YOUR TIME (sometimes students think writing about film is easier than writing about text, but you may be unpleasantly surprised if you don't budget your time wisely). As you watch, keep notes. For the first viewing, note which elements of the film strike you as unfamiliar or perplexing. Note which elements are repeated to emphasize a point or a perception.

Calendar

Mon Oct 17

Discuss film elements, analysis of film. Select your film from list.

Wed Oct 19

Text dialogue on film due. Post in <emma> as Assignment 3, Stage 1. Film screening session one.

Fri Oct 21

Film screening session two. Post Text Dialogue on first section of in-class film as Assignment 3, Stage 2.

Mon Oct 24

Post Text Dialogue on first section of in-class film as Assignment 3, Stage 3.

Wed Oct 26

Exploratory Draft due. Post in <emma> as Assignment 3, Stage 4.

Mon Oct 31

Mid-Process Draft due. In-class peer response.

Wed Nov 2

Concluding Revisions due.

Assignment 3 (10:10 AM)

10:10 AM Class

Essay 3: Film Critical Essay

A film review is an article that is written for people who haven't seen a movie. It attempts to recommend whether or not they should see the movie. Conversely, a theoretical essay assumes that its audience not only has seen the film at hand, but has also thought a great deal about it. It assumes that the reader has a great deal of knowledge about specific films, movements in film, the careers of directors, etc. Your essay, the critical essay, is positioned somewhere between these two. For your essay you should assume that your audience is at least familiar with your film, but has not thought about it as extensively as you have. You might want to remind the reader about key themes or elements of the plot, but you do not need to dwell on repeating the film on paper.

What you do want to do is think about how the film works as a film. What is, in your mind, the most important aspect of the film? Once you have decided that (and that may take a while -- several viewings), you need to pay attention to how the film accomplishes conveying that most important aspect to its viewer. For instance, if you decide that the most important aspect of the film *Dead Man Walking* is its ability to strike a balance in between extreme positions in the capital punishment debate, then you might think about how the film does this: by presenting the foibles and mistakes of Sr. Mary Helen Prejean, by giving dialogue to both victims families and the criminal's family, and by balancing the un-sentimental dramatization of the state-sanctioned killing of a human being against reenactments of the crimes of the condemned. How does the film get its message across?

First, select the film you may want to write about. Choose a film as soon as possible from the list below that you can rent/access at the library for at least a week. Then, watch and digest the film.

Be prepared to watch this film several times, at least once before you begin writing in-class. THIS WILL TAKE A LOT OF YOUR TIME (sometimes students think writing about film is easier than writing about text, but you may be unpleasantly surprised if you don't budget your time wisely). As you watch, keep notes. For the first viewing, note which elements of the film strike you as unfamiliar or perplexing. Note which elements are repeated to emphasize a point or a perception.

Calendar

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Discuss film elements, analysis of film. Select your film from list.

Wed Oct 19

Text dialogue on film due. Post in <emma> as Assignment 3, Stage 1. Film screening session one.

Fri Oct 21

Film screening session two. Post Text Dialogue on first section of in-class film as Assignment 3, Stage 2.

Mon Oct 24

Post Text Dialogue on first section of in-class film as Assignment 3, Stage 3.

Wed Oct 26

TBA.

Mon Oct 31

Mid-Process Draft due. In-class peer response.

Wed Nov 2

Concluding Revisions due.

List of Films (If you want to select a film not on this list, you must first check with me. It should be a film that I've seen and that I can imagine you writing a paper about.)

Assignment 4 (Same Assignment for 9:05 and 10:10 AM)

Essay 4: Writing About Film in Public Spaces

For this last out of class project, we will write a film review for Wikipedia, the online encyclopedia.

1. The first aspect of the project will be identify, review, and assess Wikipedia's goals and policies to determine how our information can best contribute to the goals of that project.
2. The second task will be to decide which film you will write about, and whether you will work as a group or on your own.
3. The third task will be to examine Wikipedia film pages to determine the rhetorical elements of the best pages. How would you determine the best pages? You can look at longer pages, most revised pages, most visited pages, etc., but it is best to survey pages which are well-developed, and identify common elements of style. Once you have a feel for what makes a good Wikipedia film page, then you can then assess the film page of your choosing. You will need to describe what you think can and should be improved.
4. Make your changes to the page. Write out the changes in advance. Be sure to register with Wikipedia, and log in each time you access the site. Also, send me your login information. Before you save edits, make sure to use the preview function to read through the proposed changes, and explain your changes in the edit summary box.
5. Lastly, once you have begun making your contributions to the page, be sure to document on the discussion pages what you are changing and why you think it improves the page in terms of Wikipedia's own style. N.B. There is a high probability that what you write will be changed by another person on Wikipedia. Don't get upset.

Overall, your mission here is rather similar to our first essay, which sought to inform the reader about a topic. Since you are contributing to an encyclopedia project, you won't be contributing "original research." Rather, your mission is to attempt to summarize the state of knowledge on the given topic. You need not argue a thesis. Instead, you need to convey an ethos of expertise on the subject.

Dates

Wed 11/9/05

Project Overview. Wikipedia Orientation. Determine Group or Solo Status.

Fri 11/11/05

250 words or more: Write out a description of your understanding of the Wikipedia project, its goals, its problems, and how you feel contributing to the project will or will not help your writing skills. Upload as assignment 4, stage 1.

Mon 11/14/05

250 words or more: Complete a rhetorical analysis of Wikipedia film pages. Examine at least 12 film pages. Read them, and identify their common rhetorical elements. What makes for a better film page in Wikipedia? Upload as assignment 4, stage 2.

Wed 11/16/05

250 words or more: Identify the film page you are working on. Using your description of the elements of a good film page from the last assignment, what changes do you think your film page needs? Upload as assignment 4, stage 3.

Fri 11/17/05

Make edits to your page, using the procedures described above. Upload a link to the page before and after you have made your changes. Assignment 4, stage 4.

Mon 11/19/05

Wrap up.

Assignment 4 Wikipedia Instructions (9:05 and 10:10 AM)

Essay 4: Wikipedia Orientation

What is a wiki?

As some of you already know, a wiki is a webpage which a user can edit. Wikipedia, in particular, is a wiki organized along the lines of an encyclopedia. This means that Wikipedia welcomes well-prepared, well-researched information into its database. It also means that just as any user may contribute text, so may any user also remove text. You can expect that your contribution will be read, edited and/or removed entirely by other users.

What makes a good contribution to Wikipedia?

Wikipedia has defined what type of content it desires: http://en.wikipedia.org/wiki/Wikipedia:Policies_and_guidelines Four key concepts are NPOV, copyleft, original research, and civility.

NPOV

Neutral Point of View basically means that your writing informs, rather than persuades. You have written your first essay in this format -- reporting information. Your goal is to give the reader verifiable information on a topic and then allow the reader to decide for his or herself how to interpret that information. More can be found here: http://en.wikipedia.org/wiki/Wikipedia:Neutral_point_of_view

Copyleft

Content in Wikipedia is published under the terms of the GNU Free Documentation License. For our purposes this means that all of the information posted on Wikipedia should be your own work (small quotations clearly attributed to others is acceptable when necessary), and that what you post on Wikipedia can be copied elsewhere by others. Under no circumstances are we permitted to copy work from other web pages and post it on Wikipedia. More information can be found here: http://en.wikipedia.org/wiki/GNU_Free_Documentation_License

Original Research

This concept is closely related to NPOV. Wikipedia is interested in collecting known and verifiable facts about any number of topics. Unverified theories, your "take" or personal opinions, are not welcome in Wikipedia. More information can be found here: http://en.wikipedia.org/wiki/Original_research

Civility

Remember, everything we submit to Wikipedia will be mercilessly edited! Don't take it personally! Look at the talk pages, and discuss with other users the rationale for editing your work. Always point the discussion toward the Wikipedia principles, especially as it pertains to edits on your work. If you feel yourself getting upset, talk with me first before posting your thoughts. More information can be found here: http://en.wikipedia.org/wiki/Wikipedia:Civility

Our Contributions

I have asked you to look on Wikipedia to figure out where you may want to fit in your contributions. You will need to do the following once we have found the appropriate place on Wikipedia for your contribution:

1. Create a Wikipedia user account.
2. Look at the wiki code before making changes.
3. Practice your edits -- use the sandbox, and always preview your changes.
4. Post a brief entry on the discussion page about what you are changing, and why it fits into the overall project.

We will work on these procedures together in class.

APPENDIX E

Student 13 Writing Excerpts

Student 13 Portfolio Biography

My name is [. . .]. I was born September 23rd, 1987, in the mountains of Mars Hill, N.C., where I lived right next-door to my grandparents. I lived there for two years before moving to Bogart, GA, where I've resided ever since. [. . .]. I attended Westminster Christian Academy for 12 years and I have been going to the same church ever since I moved to GA.

I learned to read at an early age. When I was two years old, I loved to sit and look at books, memorizing them and looking at the pictures. By the time I was four, I could read well and was already writing short stories for fun. So I've always loved to read and write. My favorite books to read now are the *Star Wars* series.

I also love to dance. I've been taking tap, lyrical ballet, and jazz for 12 years [. . .]. Dancing is my very favorite thing to do. In 2002 I received the "Dancer of the Year" award and I perform in annual recitals. In addition to these recitals, I have danced at festivals and events, and also in retirement homes around the holidays.

I like music too. When I was a baby, I had to have classical music on every night to fall asleep. Now, I still have music on at night, but I usually listen to oldies. I took piano lessons for about 5 years, but actually play more now, than I did when I had lessons. And this year, since I became a *Star Wars* fan, I started listening to the soundtracks to the *Star Wars* movies. The music is beautiful and it can really take you away.

I have always been a bit shy and quiet. I'm the type of person who would rather spend time practicing dancing or reading a book, than go to a social event. And I've always hated getting up in front of a class to talk. I'm terrible at oral presentations. I always talk too fast and quietly and get really nervous. When I write I can express myself so much better and find that I'm not at a loss for words.

As long as I like what book I'm reading, I'll spend all day reading it. When it comes to writing, if I'm interested in what I'm writing about, I'll be able to do a much better job. But if I don't understand or am uninterested in the subject, my writing is not very good at all. This semester, every topic we've had to write about was interesting. We had requirements, but we also had some freedom. Like in the film essay, we could pick our favorite film. In another essay, we were allowed to pick our own place to write about. So, I was actually able to enjoy writing them and take pride in my work because I had done my best.

So, writing enables me to express myself, especially since I have a hard time doing so verbally. I find that when I write, I'm no longer at a loss for words. That's one reason I enjoy it so much. In the future, as a writer, I can see myself writing various articles for newspapers and magazines, and maybe also writing fictional novels for the *Star Wars* series. I think that would be a lot of fun!

Student 13: Assignment 4, Stage 1

For our fourth essay assignment we will be working with a website called "Wikipedia". "Wikipedia" is an online encyclopedia that anyone can edit. "Wikipedia" doesn't have opinions, it's like an entry in an encyclopedia, so we won't have a thesis to argue with this next assignment. We are to pick a movie and find an entry for it in "Wikipedia". Then we are to look at ways we can improve and add to the entry. Our goal is to demonstrate a great knowledge of the movie and present it well throughout our entries in the wiki. Our experience should show through what we write. There are problems with "Wikipedia" though. One writer named Larry Sanger comments, "My point is that, regardless of whether Wikipedia actually is more or less reliable than the average encyclopedia, it is not perceived as adequately reliable by many librarians, teachers, and academics. The reason for this is not far to seek: those librarians etc. note that anybody can contribute and that there are no traditional review processes. You might hasten to reply that it does work nonetheless, and I would agree with you to a large extent, but your assurances will not put this concern to rest. " He also says that the root problem is the "lack of respect for expertise." So even if you spend a long time writing expert entries in Wikipedia, your entries can still be deleted and changed. I think our job in this project is to pick a movie and write about it in Wikipedia. We might have to delete things and edit them and we'll definately add to them. Our goal is to display expertice writing without expressing our opinion, and improving the entries in Wikipedia as a whole.

Student 13: Assignment 4, Stage 2

When I looked at 12 movies on Wikipedia, I found that almost all of them hada plot summary and cast. The movies I chose to look at were: all six of the Star Wars movies, Forrest Gump, American Graffiti, The Matrix, The Aristocats, The Wizard of Oz, Bright Eyes, and Grease. I think that the more developed and thorough a Wikipedia entry is, the better it is. I think there should be a brief summary for those who only want to know a little about the film, but the rest should be thorough and informative so that those who are fans of the movie will learn stuff too. Star Wars Episode III "The Revenge of the Sithe" had 14 categories with subcategories under it! It was very thorough and well-developed, especially for such a new movie. Most of the entries I saw were well developed with sections like:Trivia, Reaction, Awards, Music, Release, and Novelization. But there wasn't much at all for the Aristocats and Bright Eyes. I also noticed that there were no categories called "quotes" from the movie, but there were some quotes in some character descriptions. I think, if it were allowed, that it would be a good idea to include a category called "quotes" from the movie. I really want to work with Star Wars episode V but I don't know if it's already too well developed. Some additional ideas I had include: Awards and Nominations, Quotes, Opening Crawl, Box Office Performance, recurring themes, main filming location(s), more about the novel , a section devoted to the music and a list of all the sounds on the soundtrack. I just don't know if that's enough things to do with that entry. But out of the Star Wars movies entries it is one of the least developed. I also am concerned about it because of the discussions I read about the changes made. Some people were pretty hostile and used profane language when people made changes to their work. I want to do "The Empire Strikes Back" but I'm just not sure if it's a good idea or not.

Student 13: Assignment 4, Stage 3

Like I said in my previous assignment, I really want to work with Star Wars episode V *but* I don't know if it's already too well developed. I could do Awards and Nominations, Quotes, Opening Crawl, Box Office Performance, recurring themes, main filming location(s), more about the novel, a section devoted to the music and a list of all the sounds on the soundtrack. But would that be enough things to do with that entry? It has a lot already written about it but compared to the other Star Wars movies entries it is one of the least developed. I also am nervous about doing this movie because of the discussions I read concerning its changes. Some people were pretty mean and disrespectful, even using curse words, when people made minor changes to their work. I want to do "The Empire Strikes Back" but I'm just not sure if it's a good idea or not. If it's not a good idea to do this movie, I have another one in mind. It's a Disney movie, "The Aristocats." I've seen it many times and there's not much posted at all on Wikipedia about it. It pretty much has a very short plot summary and only brief character descriptions. So there's plenty I could do with that movie entry. If there is a lot of information still left to contribute to the Star Wars V entry, I'll do that. But if that doesn't work out, I'll work on "The Aristocats."

APPENDIX F

Student 22 Writing Excerpts

Student 22 Portfolio Biography

Everyone needs a little inspiration from time to time. The more we feel inspired, the more we are willing to put forth the extra effort to succeed and grow both physically and mentally. Personally, I did not have any inspiration within my life--up until the birth of my now six-month old brother, Christian, who means the world to me. Born and raised in Bronx, New York, my loving mother taught me how to become the intellectual, inspired young man that I am today. However, there were times that I doubted my potential by not putting forth a hundred percent effort. Now, there is not a single doubtful bone in my body because I know that Christian is going to look up to me as both his older brother and mentor. Ever since the day he was born, I made a promise to myself that I would become the epitome of an older-brother role model. I plan on passing down to him all the fundamentals of life, especially emphasizing the emphasize the importance of a college education.

For this reason, I am inspired to perform to the best of my abilities here at the University of Georgia. Currently, I am a Biology (Pre-Medicine) major within the Franklin College of Arts and Sciences. I plan on taking my undergraduate B.S. degree in Biology and applying to a Physician Assistant Program here in Georgia. Furthermore, I would like to specialize in Obstetrics and Gynecology because I am very interested in this field and find it to be very intriguing by all means. I am involved in numerous hospital-affiliated programs where I gain experience within this field. I am also employed at the University's Health Center on campus. I feel that I have completed enough community services and jobs to be sure that this is what I want to do for a living.

Overall, I characterize myself as being determined, compassionate, and strong-willed; three aspects that I hope Christian will one day achieve through hard-work and dedication. I also hope that he will one day make the decision to attend college, preferably UGA because I think it's awesome to be able to call Christian a "little Georgia bulldawg."

Student 22: Assignment 4, Stage 1

Evaluation of Wikipedia Project

To me, Wikipedia seems to be an "online learning encyclopedia." I feel that everyone who contributes to this website learns a little bit more than they already knew. Wikipedia appears to be unique because the articles posted in this site are edited by the general public, which means that the validity of its work needs to be checked.

According to my understanding of the Wikipedia Project, we, the students, are going to be adding additional information to an article. This information will be left online for the general public to edit and leave feedback. I also understand that we may receive negative feedback about our work.

There seem to be many goals from this project. One of them is for us, the students, to be able to take constructive criticism. Another goal is for us to be able to use that constructive criticism and use it to our advantage by revising our work. I also feel that gaining experience with documents online is another goal.

A problem that may arise during this project is that we, the students, may not be happy with the criticism left by strangers about our work. Personally, I feel that no matter how negative the criticism is, you can only make your work better by actually keeping it in mind and using it to your own advantage. This is the only problem that I feel will arise for me personally.

I feel that contributing to this project will help my writing skills because it will help me gain experience in accepting constructive criticisms and using them to my advantage. I think that this project will also help me in distinguishing important from non-important information within an article because it requires us to critically evaluate an article to see where best information could be used. I feel like this aspect of the project will especially help my writing skills.

Student 22: Assignment 4, Stage 2

Rhetorical Analysis of Wikipedia Film Pages

The 12 movies that I analyzed are: Child's Play, Holloween, The Exorcist, Home Alone, Leprechaun, Lethal Weapon, The Karate Kid, Jaws, The Matrix, National Lampoon's Vacation, A Nightmare on Elm Street, and Prom Night. Basically, the rhetorical element that consistently comes up in all these movies are plot/summary, cast/actors, and external links. Personally, I feel like external links were created for fanatics of the movie whereas they are able to further read more reviews and find out information on a given movie. Another rhetorical that comes up intermittently is "awards." This goes to show how much this film has been recognized since the day it was first directed. "Box Office" was is another rhetorical element that intermittently shows up. This is especially interesting to the viewer because it shows exactly how much money was made by this particular film. Often, this amount is in its high millions. It also provides a breakdown of where the money is being disbursed from such as the United States of America and other foreign countries.

What makes for a better film page? Well, I believe that a film page that contains the basic rhetorical elements such as plot/summary, external links, cast/actors, and awards are always well-rounded and thus, makes a better film page than those that do not contain these information. However, pages that are too long and boring are not favored by me at all. Each movie film page should have captivating photographs on their film pages so as to catch the immediate attention of its viewers.

Student 22: Assignment 4, Stage 3

Evaluation of my Wikipedia Film Page

The film page that I am working on is "The Color Purple." The movie, starred by Whoopi Golberg is directly based off the book. However, there seem to be no film page on this movie other than a review of the book itself. Therefore, it is up to me to create a page that enables viewers to view the different aspects of the movie such as plot/summary, external links, awards, cast/actors, etc. Thus, this assignment will be especially difficult considering that I cannot make changes to my film's page on account of there not being one in the first place. I do feel like there is a lot to be said about this particular film and am astonished that no one online has created a film page for "The Color Purple." Since this assignment requires me to create a film page from scratch, I am going to start off with collecting information for the basic rhetorical elements first. Then, I will worry about adding additional information to the page such as "Box Office" and other useful rhetorical elements that I feel is useful to any viewer's comprehension of the movie.

There are a lot of events that took place in this movie; therefore, I anticipate a somewhat lengthy plot/summary. However, I am going to try to shorten it as much as possible, enabling me to be direct and concise. Nonetheless, this project requires a lot of work on my part and I feel like I am somewhat up to the challenge.

APPENDIX G

Student 24 Writing Excerpts

Student 24 Portfolio Biography

My name is [. . .]. I am from Newnan, Georgia where I attended East Coweta High School. Newnan is a small, country town, but is rapidly growing. I was very involved in high school. I was a Varsity Cheerleader, Class Officer, and a member of many clubs and organizations. My high school was very successful in many sports which made my time there very exciting. When deciding on which college to attend it was not a hard decision for me. From the time I moved from South Carolina to Georgia in the second grade, I knew I wanted to be a Georgia Bulldog. I realized all of my hard work had finally paid off when finding out I had been accepted during early admissions. I am really enjoying the campus and the size of the school. Although I have been here for only one semester, I have already learned a lot about myself through the University's diverse student population. Now that I am here at the University of Georgia I know I have a lot more work ahead of me. I do not feel I am a very strong writer. Sometimes I can not express my ideas on paper as clearly as what I am saying in my mind. I believe it would be pleasing to write for a magazine or something of that nature, but as of now I am pursuing a degree in the medical field. I feel I have a ways to go before I am fully satisfied with my writing style.

Student 24: Assignment 4, Stage 1

Purpose for Assignment

For our next assignment, we are going to complete a film review for Wikipedia. We will research several different films already posted on Wikipedia to get an understanding of a good film review. Here we can see which pages contain what type of information, the pages lengths, how much is that particular page looked at, etc. to obtain an idea of what our page should look like. After we review films, we will choose our own film to complete our project. We will review this film's site and see what we can add to it to make it a better review. We will make our changes and also say why we made those changes. I think this assignment is going to be tough for me because it is hard for me to look at things on a deeper level. I will most likely read my film's page and not see anything I could add to it. It will take a lot of thought on what to add and what I can bring to this film's review. If I can find useful information to add, I do feel it will contribute to my writing skills. It will contribute to them because it will show me that I can think on other levels. It will help me realize that this type of information allows some thought and not something I can think of quickly. I feel this will be the most difficult assignment, thus far, for me. Hopefully I will be able to find something to add to my film's page. I am very nervous about beginning this assignment.

Student 24: Assignment 4, Stage 2

Film Reviews

Wikipedia is an online encyclopedia that allows people to view film pages they are interested in or even make their own additions to the film pages. After reviewing twelve film pages on Wikipedia.com, I have found most of them are different from the next. Some of the pages were very developed and others hardly contained any information. Mostly the film pages gave a general overview of the each film. The pages did not go into great depth of each aspect of the film. The most popular categories on Wikipedia were plot summary, cast, success or awards, and external links. The external links allowed the reader to search for more information on that particular film, which I found to be very useful. Some of the films based on historical information had the category of historical background. I found this to be interesting because it explained to the viewer why the director may have produced his film in the manner he did.

A good film page on Wikipedia would go into depth on the themes and symbolisms found in a film. Possibly remind the viewer of something that they might have missed the first time they watched the film. Some of the pages I reviewed showed how the film related to pop culture. Another category I think would be interesting would be mentioning what the film has done for society. Or maybe even what influenced the film to be produced. Although Wikipedia gives the basic information of a film, I think the pages would be more interesting if they contained information that is not so obvious to the viewer.

Student 24: Assignment 4, Stage 3

For this next assignment on Wikipedia, I have chosen the film The Color Purple. There is not a current film page on Wikipedia over this film, but there is a page on the book. The book page does mention the film being produced, but does not go into great detail. I have a lot of work to do on this film page. The film The Color Purple was a major picture film so I am surprised the page has not yet been produced. The categories I am going to work on as of right now are plot summary, cast, external links, and awards. I will probably add another category or two but have not decided which would be of greater value thus far. I found a website that I think will very beneficial to me with the categories I am already going to include on my film page. I still need to do a lot of research about this film so I know in which direction my page is going to be geared towards.

APPENDIX H

WPA Outcomes Statement for First-Year Composition

Adopted by the Council of Writing Program Administrators (WPA), April 2000

For further information about the development of the Outcomes Statement, please see

http://comppile.tamucc.edu/WPAoutcomes/continue.html

For further information about the Council of Writing Program Administrators, please see

http://www.wpacouncil.org

A version of this statement was published in *WPA: Writing Program Administration* 23.1/2 (fall/winter 1999): 59-66

Introduction

This statement describes the common knowledge, skills, and attitudes sought by first-year composition programs in American postsecondary education. To some extent, we seek to regularize what can be expected to be taught in first-year composition; to this end the document is not merely a compilation or summary of what currently takes place. Rather, the following statement articulates what composition teachers nationwide have learned from practice, research, and theory. This document intentionally defines only "outcomes," or types of results, and not "standards," or precise levels of achievement. The setting of standards should be left to specific institutions or specific groups of institutions.

Learning to write is a complex process, both individual and social, that takes place over time with continued practice and informed guidance. Therefore, it is important that teachers, administrators, and a concerned public do not imagine that these outcomes can be taught in reduced or simple ways. Helping students demonstrate these outcomes requires expert understanding of how students actually learn to write. For this reason we expect the primary audience for this document to be well-prepared college writing teachers and college writing program administrators. In some places, we have chosen to write in their professional language. Among such readers, terms such as "rhetorical" and "genre" convey a rich meaning that is not easily simplified. While we have also aimed at writing a document that the general public can understand, in limited cases we have aimed first at communicating effectively with expert writing teachers and writing program administrators.

These statements describe only what we expect to find at the end of first-year composition, at most schools a required general education course or sequence of courses. As writers move beyond first-year composition, their writing abilities do not merely improve. Rather, students' abilities not only diversify along disciplinary and professional lines but also move into whole new levels where expected outcomes expand, multiply, and diverge. For this reason, each

statement of outcomes for first-year composition is followed by suggestions for further work that builds on these outcomes.

Rhetorical Knowledge

By the end of first year composition, students should

- Focus on a purpose
- Respond to the needs of different audiences
- Respond appropriately to different kinds of rhetorical situations
- Use conventions of format and structure appropriate to the rhetorical situation
- Adopt appropriate voice, tone, and level of formality
- Understand how genres shape reading and writing
- Write in several genres

Faculty in all programs and departments can build on this preparation by helping students learn

- The main features of writing in their fields
- The main uses of writing in their fields
- The expectations of readers in their fields

Critical Thinking, Reading, and Writing

By the end of first year composition, students should

- Use writing and reading for inquiry, learning, thinking, and communicating
- Understand a writing assignment as a series of tasks, including finding, evaluating, analyzing, and synthesizing appropriate primary and secondary sources
- Integrate their own ideas with those of others
- Understand the relationships among language, knowledge, and power

Faculty in all programs and departments can build on this preparation by helping students learn

- The uses of writing as a critical thinking method
- The interactions among critical thinking, critical reading, and writing
- The relationships among language, knowledge, and power in their fields

Processes

By the end of first year composition, students should

- Be aware that it usually takes multiple drafts to create and complete a successful text
- Develop flexible strategies for generating, revising, editing, and proof-reading
- Understand writing as an open process that permits writers to use later invention and re-thinking to revise their work
- Understand the collaborative and social aspects of writing processes

- Learn to critique their own and others' works
- Learn to balance the advantages of relying on others with the responsibility of doing their part
- Use a variety of technologies to address a range of audiences

Faculty in all programs and departments can build on this preparation by helping students learn

- To build final results in stages
- To review work-in-progress in collaborative peer groups for purposes other than editing
- To save extensive editing for later parts of the writing process
- To apply the technologies commonly used to research and communicate within their fields

Knowledge of Conventions

By the end of first year composition, students should

- Learn common formats for different kinds of texts
- Develop knowledge of genre conventions ranging from structure and paragraphing to tone and mechanics
- Practice appropriate means of documenting their work
- Control such surface features as syntax, grammar, punctuation, and spelling.

Faculty in all programs and departments can build on this preparation by helping students learn

- The conventions of usage, specialized vocabulary, format, and documentation in their fields
- Strategies through which better control of conventions can be achieved