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Technical writing and the idea of the interpretive community

Phyllis M. Gilmore

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TECHNICAL WRITING AND THE IDEA
OF THE INTERPRETIVE COMMUNITY

A Thesis
Presented to the
Faculty of
California State
College, San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
English Composition

By
Phyllis M. Gilmore
June 1984
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Chairman

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ABSTRACT

Technical writing, since it is nonfiction, would seem to be light years away from a form of literary criticism like reader-response criticism. Yet, technical writers are often concerned about the responses of readers, because the very subgenres of technical writing are defined partly by the audience for whom they are intended.

This thesis looks at theories about and research into a writer's ability to respond to an audience and into ideas about reader response, especially those that Stanley Fish and Wolfgang Iser present.

The most important connection technical writing has to reader-response criticism is in the concept of the interpretive community. The ability to respond to any potential audience is rooted in this fact: there are shared signs within communities of readers and writers, as well as areas of overlap between communities.

From this arises an additional implication that technical writing education must take place across disciplinary lines. Whether the technical writer begins in the technical discipline or as a writer, he must learn the skills, interpretive strategies, and vocabulary of both.
DEDICATION

This Thesis is dedicated to my parents, Connie and David Gilmore, without whose faith and encouragement it would not have been possible.
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Chapter 1: Introduction

The writer and the reader of a text are each engaged in different portions of the creative act of communication. Each makes meaning with different raw materials and produces different results. Yet, for communication to take place, there must be agreement in some way. Agreement can be made between individuals (writer and reader) because they are part of a larger community which has made group decisions (often unconsciously) about the significance of the symbols we call words. On the broadest level, we are part of a group called "users of English."

The reader, and the meaning he makes, is more important to the writer in some situations than in others—especially those involving income. While a writer may submit a novel to publisher after publisher, he might also write it with a specific company in mind, hoping to ensure its publication. A technical writer, on the other hand, is paid specifically to respond to a particular reader's needs. That reader may be either a specific individual or a group of people who share a need for the information. Unlike novelists, technical writers usually need to persuade their readers without confusing them: "creativity" that leads to ambiguity is not necessarily welcome.
In spite of a misconception common especially among recent science and technical graduates, technical writing is not purely demonstrative, but essentially persuasive. Even when there are empirical data to be shared, the technical writer must not only establish their validity and substantiate any conclusions made about them, he must also establish his own authority. Moreover, an engineer (for example) is often asked to look at differing conclusions, postulate alternatives, extrapolate beyond the available data—and then to document his own conclusions, show the reasoning that led to them, and recommend action. Thus, a technical writer is also paid to perform acts of interpretation, often for someone who may not be a colleague, but a businessman or a politician.

Given the need to take readers into account, how can a writer "analyze" his probable audience? Is this even possible? When the concern with audience was limited to its public-speaking sense, an orator could experience immediately how well his ideas were going over. The same situation holds in conversation, where the other participant(s) can ask questions or otherwise respond. This immediacy does not exist in writing; writer and reader are separated by time and space, except in one instance: The writer is his own first reader.
The real division between the acts of writing and reading has led to two completely different viewpoints, but the additional need to divide "practical" language from the language of literature has complicated the issue further. As Jane Tompkins demonstrates in "The Reader in History," prose and poetry alike were once thought "practical." Is there any real difference in the language used? As Ruth Mitchell points out, attempts to distinguish clearly between them fail, and even her own distinction between them (the material is practical writing when someone must read and/or write it as part of his job) fails if one insists on including such "gray areas" as journalism and criticism.

The same reader can approach a Shakespearean play or Scientific American, and the same writer can write a novel or a textbook on biochemistry. There isn't really anything different in the language these works use, except a differing vocabulary in some instances and the nature of what is left to the imagination. What is different is the way the language is used or perceived, and this perception is shaped by the contexts provided by such circumstances as educational background and purpose of the work.

It is obvious that a reader who is primarily an English major cannot have the same understanding of a scientific article as a specialist in that field, but that
doesn't make the understanding gained any less valid. A layman may only understand from an article on sewage treatment that the chemical substances used to strip an aircraft's paint would cause serious problems at the local sewage plant, and that people are working on ways to get rid of the chemicals without washing them down the gutter. For the intended audience of the article, this understanding is only a preface to a discussion of how the chemicals must be treated. The basic fact is still there: you can't pour harsh chemicals down the sewer, but you can do something else to get rid of them. The author could have written the article, on the other hand, for *Popular Science* instead of for his colleagues. The contexts defined by purpose and audience would now be different, and the result would now be different.

Isaac Asimov relates in his autobiography (*In Memory Yet Green*) that his graduate adviser objected to a section of his doctoral dissertation on the grounds that he had not defined a certain variable when it first appeared. Asimov's reply was that defining it would take away all the suspense. On the other hand, when writing on a scientific topic for the layman (especially for children), the techniques of storytelling (possibly including suspense) can
make the discussion more interesting and easier to follow, and it may also make the information easier to remember.

What is right for a dissertation may not be right for the layman. Asimov is among those writers who regularly cross the boundary between "creative" writing and "technical" writing. While he is best known for his science fiction, he has also written textbooks in biochemistry, as well as scientific essays for the layman that read like stories. In these, he not only defines his variables first, he defines (if necessary) the term "variable" as well. His concern about what his audience needs to know is nearly, but not quite, instinctive—it comes from years of teaching biochemistry, years of using science as an element in his fiction, and years of "explaining things" to friends.

Reader-response critics are primarily concerned with a response to literature, the creative act of reading in which something more takes place besides mere assimilation of data. Because this mode of criticism emphasizes aesthetics and creativity, it would seem antithetical or inappropriate as a response to technical writing, where a reader's creativity is not generally welcome.

There are common threads, however. Readers are not isolated from each other; recognizable groups ("interpretive communities") exist which have some raw material in common.
Reading proceeds sequentially; each idea follows others and contributes to the ideas that follow—and this concept applies as much to one's overall education as it does to an individual work. The conventions and data collected over a lifetime as part of a community contribute to the understanding any reader will have of any work.

Reader-response criticism centers on the importance of the reader, but it is not really useful to simply tell a student writer that he should be aware of his audience as real people. All too often, the only reader who counts in the classroom is the instructor, while the only reader who counts in the workplace is a teacher substitute: the boss. Yet, student, instructor, worker, and boss are all themselves readers, and are all part of interpretive communities. Even as they write, they read. Perhaps realization of one's own self-image as a reader is the place to begin establishing the image of others as readers.

Once a writer becomes aware of what it means to be a member of an interpretive community, he might find it useful to discover the ways in which members of a target reading community have reacted to a specific kind of composition. Technical writing is an arena of high specialization. As such, its subject areas provide strong examples of the existence of interpretive communities outside of belles
Communication takes place through technical writing between groups varying in area and degree of specialization, but there are always areas of overlap that a writer can exploit—and enlarge.

This thesis seeks to explore the essential connection between reader-response criticism and nonfiction writing (as typified by technical writing) by looking at how a writer becomes a member of an interpretive community, the importance of his realization of such membership and how it came about in meeting the needs of other communities, and how the things reader-response critics suggest about the way we read can be used to advantage in effecting communication. This thesis also suggests that because interpretive communities exist within the audiences for technical writing, the value of cross-disciplinary training must be emphasized.
Chapter 2: Literature Review:  
The Reader from the Writer's Viewpoint

Virtually every textbook on writing has something to say about audience, although it is often no more than a generalized call for the writer to attend to his audience. No one seems to doubt the importance of the writer-audience relationship, although some works give it more emphasis than others. The differences generally appear in the theoretical conception of what the problem is and in what to do about it.

The most common impression given is that, if the student becomes aware that there is a real audience, magic occurs. It may seem this way, for it may be that even the best writers are only deliberately conscious of audience in the prewriting stage (or, possibly, in the rewriting stage), just as they are only deliberately conscious of spelling when they are proofreading. Sometimes, however, a class is itself forged into an audience/writers community by interaction; rather than necessarily learning how to analyze audiences in general, the students have learned to respond to each other.

This chapter is not intended to be an exhaustive list of the opinions and experiments related to audience.
analysis. The items cited do not deal exclusively with technical writing, because the theoretical and experimental emphasis has been on traditional classroom settings. The discussions that follow begin with a sampling of theory based on classroom practice and continue with reported research into writers' ability to respond to an audience.

In his article "Writer-Audience Relationships: Analysis or Invention?", Russell C. Long gives an interesting view of the range of opinion as a preface to proving "they" are all off the track.

At one extreme are the works which either ignore the issue altogether (and presumably subscribe to the notion that a student's writing will be read by no one without a contractual obligation to do so) or dismiss it with some curt variation of "Don't forget your reader." At the other end of the spectrum are those works . . . which devote a considerable amount of space even entire chapters, to the subject. . . . Among those works recognizing the importance of audience a common focus is upon analysis of audience. . . . all share exactly the same basic set of premises: that observable physical or occupational characteristics are unvaryingly accurate guides to attitudes and perceptions, and that people sharing certain superficial qualities are alike in all other respects.4

In addition to the last objection, he feels the methods of the theorists who deal most heavily with audience set up the reader and writer as antagonists, a relationship he feels is not necessary for workable prose. The writer and reader need not be antagonists, and in fact the writer
should be on the reader's side (even in persuasive writing, where they may occasionally seem to be at odds); analysis hardly requires antagonism.

Long goes on to quote Walter J. Ong's essay, "The Writer's Audience is Always a Fiction." The salient point is the last sentence that Long quotes: "A reader has to play the role in which the author has cast him, which seldom coincides with his role in the rest of life." If this is true, then the writer creates his own audience, which exists only for as long as it takes to read the paper. Long admits that putting conscious audience-creation into practice is a problem, for the difficulty with many pieces of student writing is that the student has already created an imaginary audience: Teacher.

This is the situation William E. Coles, Jr., attacks in The Plural I: The Teaching of Writing. His student's first essays are classics of vacancy, arrangements of words in which only the characters change. The students believe they have learned what sells, and when they discover this won't work with Coles, they bluntly ask what his "game" is. His goal is to get them to see each other as their audience, an audience near enough and vocal enough to analyze. He uses a particular audience to help design a style suited to
that audience, but he really doesn't help the students learn how to write for other audiences.

Fred R. Pfister and Joanne F. Petrick, in "A Heuristic Model for Creating a Writer's Audience," provide a list of questions designed to seek out the most pertinent information about the intended audience. The list is thorough, and it would be useful if it gave a sense of what to do with the information so determined. The most difficult part remains the "how to." However, like Coles, they speak from classroom experience.

Their questionnaire elicited an interesting series of responses after they surveyed forty of their students (age unspecified) about their conscious perceptions of audience when they write. Of the forty students, twenty-eight admitted they consider the identity of their audience--but twenty-two of those assumed the audience was the teacher. Pfister and Petrick then discussed the importance of audience awareness with the class, and introduced their heuristic model. Subsequent assignments seemed to produce more clear and informative writing. While their experiences are all practical rather than experimental, this model is the first attempt at something other than a description of the status quo. They assume audience is important, assume that informing the students that there is a problem will help,
and toss in a whetstone for the sword by providing the model.

Thomas Pearsall believes in examples. In *Audience Analysis for Technical Writing*, he gives samples for various general types, along with rationales for what is included in each. For a student (as, alas, for bureaucratic writers), the temptation is simply to cut and paste, taking a prototype and snipping out what doesn't fit and gluing in what does. Yet, the reasons behind the types (such as that executives are more interested in profits than in new scientific theories) could help the student see how to apply the Pfister and Petrick heuristic.

Douglas Park points out in "The Meanings of 'Audience'" that the terms "audience" and "readers" are often used almost interchangeably. Moreover, the literal audience-as-actual-people definition contrasts with the more abstract rhetorical concept of audience (such as Wolfgang Iser's "implied reader").

His major observation is that writing teachers depend too heavily upon the concrete image of "readers external to the text" (p. 255). He notes that the very words used convey a concern about audience have very different connotations, and thus point out the rich ambiguity of "audience": "aiming at, assessing, defining, internalizing, construing,
representing, imagining, characterizing, inventing, and evoking audiences" (p. 248).

Park believes, instead, that what writers actually invent is not the "audience," but contexts into which an audience can fit itself (see Chapter 6, on Stanley Fish):

To some extent, then, the task of analyzing audience is a matter of identifying the nature of the contexts that are already given by some aspect of the occasion of publication and of understanding the relationship between those that are given and those that must be more explicitly defined within the discourse itself. Another part of the task is understanding how particular contexts are created within the discourse. ... in public prose, it is a matter of shaping into a rhetorical situation the potential bits of opinion, knowledge, motives for interest that lie about in the public domain in no particular form. The writer invents, so to speak, their significance and, in so doing, creates an audience. (p. 253)

Audience is not usually separable from genre and convention; trying to write without a clear sense of what must be done, its social function, and the appropriate conventions leaves one "in a terrible vacuum" (p. 256).

Park admits that how writers can learn to deal with this needs to be studied in more depth. He suggests that writers probably come to an understanding of audience as convention by reading the appropriate kind of prose.

Park's observations bring an interesting light to bear on the relationship between nonfiction writing and the "interpretive community" concept. From the writer's stand-
point, at least, the audience must virtually be a fiction—
even if the writer knows exactly who will read his writing,
he cannot know that person (or group) perfectly.

Parks suggests that the writer can read material in
the subject, to find out what others have said (and presum-
ably how they said it). In essence, by becoming part of the
interpretive community, the writer can come to some sense of
what that community needs. As Park points out, we don't
know a great deal about the strategies for creating specific
contexts in expository prose, but "every skilled reader
knows intuitively and can do an ad hoc analysis of a partic-
ular piece of prose" (p. 253).

There have not been an overwhelming number of con-
trolled experiments dealing specifically with audience analy-
sis, and most theory is based on practical experience in
teaching. The samples below are representative of reported
research.

The earliest of these experiments was reported by
Britton, et. al., in The Development of Writing Abilities
(11-18). This London project, conducted during the late
60's and early 70's, was concerned with function and the
relationships between writer and reader in writing done at
the junior- and senior-high school level. The researchers
developed category systems for rating both audience and
functional areas, and carefully defined these for the raters. For audience, these categories ranged from the child (or adolescent) to self (as in a journal), through teacher-student relationships, to the "wider audience"—both known and unknown. They also added categories for "virtual named audience" (such as a letter) and for "no discernible audience." There were three main functional categories: transactional ("language to get things done"), expressive (including "brain-storming" on paper and personal letters to friends), and poetic (language used as an art form).

They set up an interesting contrast between the two extremes of function, transactional and poetic: the former is a means to an end while the latter is an end in itself. They go on to say that the transactional is the participant role, in which the writer wants his writing to "enmesh with his reader's relevant knowledge," whereas in the poetic (the spectator role), the reader wants to set up relationships internal to the work, to "achieve a unity, a construct discrete from actuality" (p. 94). Poetry is defined in a way that credits the writer with New Critical goals, regardless of intention.

They collected over two thousand "donations" from teachers, along with short notes from the teachers about their instructions to the students. These samples, or
"scripts," were from various subject areas: English, history, geography, etc. The researchers considered that any paper for which at least two of its three independent raters agreed on the category would be valid for their data. Ninety-four percent of the samples' ratings "passed" in the audience area, as did 82 percent in the function area.

As might be expected, the students' writing was dominated by teacher-as-audience categories, particularly "teacher as examiner," with "teacher-learner dialogue" coming in second. Toward the upper end of the age range, there began to be a tendency toward the wider-public audience, but this was monopolized by the English subject area. Transactional writing was the dominant function; the other forms were scantily represented and almost exclusive to the domain of the English subject area. The researchers saw a strong correlation between the dominant audience, teacher as examiner, and the dominant function, transactional.

Britton and his colleagues point out that even when a teacher assigns an "other" as audience, the student still perceives the shadow of the teacher--at worst resulting in a confusing double-image. Their research did not seek to prove this, but the dominance of the "teacher as examiner"--showing the need to "perform"--may be a clue to the usefulness of specifying an audience. Since this study used a
wide range of assignments, given by a wide range of teachers, there is no way to judge how carefully any audience may have been specified, if any were. Perhaps, if the specification is not clear enough, the writer has no archetype but the teacher.

Kroll, in "Cognitive Egocentrism and the Problem of Audience Awareness in Written Discourse," makes some interesting observations about the relationship between cognitive development and the ability to take audience into account in writing. He is primarily interested in children (his experiment involved fourth-graders), and he cites such authors as Moffet, Piaget, Flavell, Brown, and Shaughnessy. The problem appears to be that younger children not only fail to see that their audience doesn't know everything they know, but are not even aware of the possibility.

His experiment centered on the contrast between spoken and written explanations of the rules of a game the children had learned. The explanations were scored on the basis of how much information they conveyed, on the assumption that the receiver of the communication did not know how to play the game. He compares his findings to a study by E. T. Higgins, which Kroll hesitates in contradicting only because of varying methods. Kroll's results seem to indicate that the "decentration" in writing lags behind that in
speaking. He concludes from this that exploration into audience awareness should be directed not at "the salient characteristics of audiences, but the constructive processes operative in the mind of the writer. We need research efforts aimed at identifying the specific cognitive correlates of audience awareness." (pp. 279-80)

The difficulty with his conclusion is that it seems to derive more from his literature survey than from his own research. It would seem that the children in the study were sufficiently decentered to give good spoken explanations of the game. It may be that the cues present with a "live" audience are the key to their decentered speech—cues which are not present during the writing process. The development process may involve absorbing many such clues, and generalizing them. (Kroll admits, too, that the second communication a child made, regardless of which mode, showed some improvement over the original communication. Could this be part of the cue-collecting process?)

Gene L. Pinche has participated in two studies of how student writers respond to specific audiences. The first study, with Marion Crowhurst, is described in "Audience and Mode of Discourse Effects on Syntactic Complexity in Writing at Two Grade Levels." The writers were sixth and tenth grade students; each wrote in one of three modes of
discourse, addressing essays to each of six audiences (including teacher and best friend). The researchers found that clause and T-unit length were greater for essays addressed to the teacher than for those addressed to the best friend. They also found that persuasion generated the most complexity and was the mode most affected by a change in audience.

Crowhurst and Pinche's observation that the persuasive mode itself promotes a greater awareness of audience led to the second Pinche study, conducted with Donald L. Rubin, "Development in Syntactic and Strategic Aspects of Audience Adaptation Skills in Written Persuasive Communication." Comparing the persuasive writing of skilled adults with fourth-, eighth-, and twelfth-graders, Rubin and Pinche found that essays addressed to a highly familiar audience (such as a friend) showed the best adaption to an audience and that the ability to identify with an audience grows with cognition abilities, although only the adult writers showed a substantial difference in the way they addressed their audiences. Despite problems with research procedures, these two studies suggest that persuasion arouses a need to adapt to an audience and that education improves the ability to meet that need, partly because education not only hones skills, but broadens the range of what is "familiar."
All of the research cited above is wholly unsatisfactory from a scientific standpoint. The projects are either insufficiently controlled, overly complex, or slanted to favor a theory, but they do sometimes suggest things they are not advertised to show (although even these observations may be undermined, to some extent, by the quality of the experiments they derive from). Interaction, for example, seems to be a valuable tool for adapting to an audience (especially obvious in Kroll, where oral responses have the advantage of the cues present in face-to-face communication); this is supported by the value of interaction in a classroom setting, as in the case of Coles.

A writer's audience is always a fiction, in the sense that it is a practical impossibility to analyze or invent an audience down to the last detail for every individual. Yet, there is always a real audience, whether the piece at hand is a novel or a flight manual. The theorists above share the concept (whether or not they would say so explicitly) that this audience is a community, a group of people who do share some needs, as well as some information, in common.

For the "fiction" to be valid, for a piece of writing to communicate, the writer must share to some degree in the target community. Coles' techniques forge readers and writers as single community, for example, through interac-
The success of the Pfister/Petrick heuristic depends on the existence of an overlap between the writer's and the reader's experience; otherwise, the questions either could not be answered or the answers could not be applied. Similarly, Pearsall's examples assume a large common body of technical information on a given subject (even for the "executive"), and his examples are basically represent literary conventions.

In essence, Park sums it up. The more overlap a writer can arrange, the more closely he can bring his personal viewpoint to align with his intended reader's, the closer he comes to doing the job of communication. The writer must clearly understand what he is writing about, its purpose, and the conventions appropriate to the circumstances. It is a matter of creating contexts out of the substance of a community. Developing membership in such a community is a process of exploration (through reading and interaction), which Park admits is not a quick and simple process.

The implications of this chapter are that writing becomes more sensitive to specific audiences' needs as the writer becomes more familiar with that audience, what it knows and what it needs to know. This is effected by reading (as Park suggests), since this adds to the common pool
of data (including not only raw data but conventions) and by interaction (such as between classmates, student and teacher, or colleagues).
Chapter 3: The Reader-Dependent Modes of Technical Writing

In the last few years, there has been a great increase in concern about technical writing, inspired by a growing awareness of the widespread impact of a technological base growing by leaps and bounds and invading every area of life. For example, at the 1982 Conference on College Composition and Communication, in San Francisco, sixteen sessions addressed technical writing.14

Computers are making the loudest noise, for as they become cheaper and simpler to use, they begin to turn up everywhere. Once thought of as "number crunchers" and sophisticated record-keepers, they now can monitor the condition of the family car or help a writer create a novel. This thesis was prepared on a highly specialized word processing system that cost nearly thirty thousand dollars, but it could have been prepared on a home computer having a good-quality printer and costing only a few hundred dollars (and perhaps even less in the future). One of the major benefits of using a computer as a writing tool is that it makes revision easy, but this very easiness has helped to increase the mound of paper under which businessmen, civil servants, and publishers find themselves buried. Still, instructions, manuals, reference books, etc., become
absolute necessities when the products of technology are bought at department stores and carried home without benefit of formal training.

The increased need for technical writers and editors in the workplace has created a new genre for academia to address in classes and textbooks. The response to this need has ranged from simple classes in technical writing and editing to special programs coordinating student writing with the student's own major field in the sciences. (The Massachusetts Institute of Technology has such a program, which is oriented toward documentation of a student's senior project. Language and technical instructors work as a team, members dealing only with their area of expertise.15)

However, technical writing is hardly a monolithic genre. From one viewpoint, anything having to do with science or technology, even a business letter, could be considered technical writing. On the other hand, some areas most people don't automatically associate with science and technology can also be included, such as legal writing and explanations of how to fill out tax returns. Even though "technology" is the most obvious example of technical writing, technical writing would be better defined as writing that deals with any highly specialized field of knowledge.
Ruth Mitchell's article "Shared Responsibility: Teaching Technical Writing in the University," attempts to categorize various types of technical writing according to purpose, audience, and essential features. She does so to point out in what areas the English department can logically involve itself. As she sees it, the English and Engineering departments are fighting one another for the right to train technical writers, for someone must write the material, and someone must train the writers. She sees a need to examine the functions and genres of technical writing, define boundaries, and apportion spheres of influence. Combative energies might then be deflected into a cooperative assault on the real enemy—writing ill adapted to its reader's needs. (pp. 543-44)

Mitchell begins to address these needs by first dividing all writing into two broad categories: practical writing and literary writing (belles-lettres). She both describes and defends this categorization with:

Literary writing, belles-lettres, differs from practical writing mainly in social function, for all other definitions fail. Practical writing earns its living, literature entertains. To appreciate the truth of this distinction, reflect that both reading and writing literature are personal choices, but you cannot choose when faced with a memo, a report, a proposal. Practical writing is part of the job. (p. 544)

She admits that there are types of writing, such as journalism (and I would include popularized science, such as that
written by Carl Sagan and Isaac Asimov), that fall into a gray area between these divisions. Journalists, for example, cannot do their work without entertaining; it is the writer's job, but not the reader's.

Under practical writing, Mitchell includes business writing, student papers, and technical writing. Technical writing embraces "technical writing as advertised" (the blueprint- and specification-translating type), journal articles, instruction, formal documents, writing for decisionmakers, and legal briefs, memos, and decisions. She includes writing done for any highly specialized field within this definition. From it springs her definition of technical writing as "the communication of information the recipient needs to perform a task." (p. 545) Mitchell continues by further subdividing technical writing into three subclasses.

Subclass 1 consists of "technical writing as advertised" and journal articles. Writers in this class direct material at peers—users, customers, colleagues; fidelity to the object or process described is essential. This audience understands the jargon and the acronyms, shares a common background, and uses what is described. As Mitchell points out, if the writer did not use the jargon, "readers would suspect that she did not know what she was talking about."
They would not trust her expertise." (p. 547) Rhetoric and polished prose are not necessary, but "good writing skills" are important: spelling, sentence construction, punctuation, avoiding redundancy, etc.

Subclass 2 consists of instructions, how-to writing, and formal documents. Its purpose is to explain or describe an object or process in terms the nonexpert can understand. (It is this type which is frequently taught in technical writing classes.) Mitchell notes that rhetorical training is the bridge between the writer (who needs to know as much as the technician) and the potential reader (who knows very little), but rhetoric should be unobtrusive. This type of writing requires a sensitivity to audience that would impede Subclass 1 writing--for example, she notes that the background information this audience requires would irritate the audience of Subclass 1 writing.

Subclass 3 includes writing for decisionmakers (such as managers and legislators) and legal briefs, memos, and decisions. It is directed at readers who are equal in educational level, but who do not share the same specialty. Here, the usefulness of rhetoric is omnipresent and the motivation for polished writing is strong, since the writer must summarize a problem or question and suggest feasible solutions, without making recommendations. He risks over-
simplification as much as overcomplication. As Mitchell observes,

When writing for decisionmakers, a researcher must distill her specialized knowledge to the point where it can be judged by logic alone. Both highly intelligent and well educated, the reader and writer share an ability to reason, but not the capacity to understand multiple regression or the role of empirical Bayes estimators." (p. 552)

The difficulty Subclass 3 writers face is that they are ex-Subclass 1 writers. Mitchell points out that their graduate school models were journals, where credibility is a major issue, but that administrators and legislators trust the experts "because they are employed by the Congressional Budget Office, or the Office of Technology Assessment, or the Rand Corporation." (p. 552) What these people need are not personal references but the bare bones of all results: they need only what they can use.

Mitchell believes that all three should be taught at both undergraduate and graduate levels, and "technical writers need a course taught jointly by discipline and writing instructors." (p. 553) This applies to all theses, dissertations, and journal articles, because these are all Subclass 1 writing. She believes that Subclasses 2 and 3 can be taught by English instructors alone, although Subclass 2 should include the discipline instructor as a junior partner. Differences between undergraduate and graduate
programs would be in level of material and the student's planned career.

Mitchell's subclasses are useful in themselves, as is the reasoning behind them. Because practical writing (of which technical writing is a subset) is "paid for," the needs of the reader are important because the writer will not be paid if they are not met—-and this is true whether the pay is money or a graduate degree. The various types of writing that make up Mitchell's categories have one thing in common: they primarily depend on audience. Even the purpose and the need for rhetoric or polished writing are based on what the reader wants or needs. Unlike a poet, the technical writer is not meeting his own needs in putting "it" into writing.

Where writing is "paid for," where it serves a distinct, material purpose, the readers and the purpose of a piece of writing assume an importance they have nowhere else. A novelist can, at least in theory, write for himself and find a publisher later who will take the book as is. Mitchell's basic description of technical writing might be redefined as "anything highly specialized." What makes technical writing different is not anything inherent in its rhetorical stance, but in the degree of specialization of the subject matter. Cross-disciplinary writing instruction
is important because the student must learn to use the English language well (the basic point of contact between communities) and to talk about his basic subject matter.

A sense of audience is not just window dressing for a technical writer who must write "how to" pamphlets or papers for decisionmakers; it is essential. His purpose, the literary conventions he uses to present his material, even the material he chooses to present all depend on who needs the information. He is tending to the needs of members of overlapping communities, so he is not working without common ground, but he has to learn where the areas of overlap are. When he is writing for his own colleagues, however, he needn't be as actively concerned. This is not because his audience is any less important, but because the reading and interactions he has undertaken have made him a member of a particular community, which he can readily define as "colleagues."
Chapter 4: The Reader from the Reader's Viewpoint

As Jane Tompkins notes in Reader-Response Criticism, this form of interpretation is not a conceptually unified position, but "a term that has come to be associated with the words reader, the reading process, and response to mark out an area for investigation." Use of the term has ranged from the ways a text seems to contain assumptions about a reader (and the way a "real" reader may or may not accept the role thus created) to the denial of the text as anything external to the reader, who creates it from the ground up.

To those who believe that the text as "the words on the page" must be approached with objectivity, the latter extreme of subjectivity is terrifying, heretical. If one denies that meaning resides solely in the text, having been carefully put there as formal details available to all trained eyes yet affecting even the untrained, and instead insists that the individual reader is the sole creator of meaning—why, the result should be total anarchy.

Anarchy is not what reader-response criticism is about; rather, as such critics as Stanley Fish point out, it seeks to demonstrate that the God of Meaning does not dwell solely in the tabernacle of the text, but in the people (readers), whose perceptions are shaped by the faith (school
of criticism) they subscribe to. Iconoclastic, yes, but it is hardly the Armageddon of interpretation.

Rather, the assertion is that there is never a moment when we are not in the grip of some value-system, never a statement we make that is not value-laden ... . Relocating meaning first in the reader's self and then in the interpretive strategies that constitute it, they assert that meaning is a consequence of being in a particular situation in the world. (p. xxv)

Jane Tompkins' book is something of a historical survey of the development in thinking about the reader and the text. Her introduction gives an overview of the developments in reader-response criticism, and her essay "The Reader in History" analyses developments not only in the nature of the reader but of the position of the critic.

She begins with critics who acknowledge the existence, within the text, of an identifiable attitude toward a hypothetical reader. This attitude can take the form of a character, someone whom the narrator addresses explicitly or implicitly. A text with an explicit address would contain direct references to a person or group, such as "Dear Reader." An implicit reference might appear through what information a writer does or does not supply; the "narratee" emerges as a person the writer feels must be told certain things, or who already knows certain things.
There can be several levels of narratee, and Peter J. Rabinowicz, in "'What's Hecuba to Us?' The Audience's Experience of Literary Borrowing," uses Tom Stoppard's play, Rosencrantz and Guildenstern Are Dead, to illustrate such levels. The humor in this play depends in part on a sense of deja vu produced by massive borrowing from Shakespeare's Hamlet, but Stoppard doesn't assume everyone is familiar with Hamlet.

Of course, there is the "real" audience, the actual people in the theater (comparable to readers); they may to some degree identify with either the "authorial" or the "narrative" audiences of the play. The "authorial" audience, already knows the plot of Hamlet, on which Stoppard's play is based. This audience is well aware that Rosencrantz and Guildenstern will die, and they know how. They are, furthermore, aware that large chunks of dialogue are taken intact from Shakespeare's play. As a result, they have an enormous case of deja vu right from the start. The "narrative" audience, on the other hand, has no previous knowledge of Hamlet, but, as the play progresses (and beginning with the title itself), they begin to develop a foreknowledge akin to that of the authorial audience, which they gain through the interpolated Shakespearean dialog (and reported events).
These two audiences are seen as being defined by the text, yet one can argue that these are simply two possible "real" audiences—that those people who have read or seen Hamlet will see certain things in Rosencrantz and Guildenstern that the casual observer will not, but that both should come to the realization by the end that the two are dead men. In terms Stanley Fish might use, we are simply defining two interpretive communities.

The movement Tompkins notes is away from a conception of a narratee who is comparable to the narrator, a part of the text, to a redefinition of the term "text" itself.

New Critics speak of the text as a physical object that can be analyzed in an objective manner. The locus of meaning is within the physical object, to be obtained therefrom through educated diligence. When the locus of meaning shifts from the thing to the person reading it, a verbal difficulty arises. Fish chooses to describe the "text" as what the reader creates; Iser chooses to call this meaning-in-the-reader the "aesthetic object." Iser clearly works from the physical text, permitting the reader to make the connections, fill in the gaps, apply the conventions, etc. For Iser, the aesthetic object is the meaning or meanings that spring from reading, that are created by the reader, not the writer.
It is only natural that there should be psychological critics who deal with the mind of the reader. Norman Holland, notes Tompkins, suggests that the reader's mind reforms the text as a function of its own identity. The reader himself has a unifying identity theme, his style of coping with the world--becoming virtually a text himself, susceptible to the interpretation of psychoanalysis.

Yet, no human being is isolated from the rest of humanity. Especially, as human beings associate with other human beings, they collectively come to decisions about "what things mean." Language itself is such a system of agreement; people who speak English generally agree on what constitutes a tree, even if a specific plant may be problematic. As an individual's life proceeds, systems of meaning are expanded and complicated by education and experience.

Anyone who notes that a particular poem is an Italian sonnet is doing so because he has been taught to look for a particular pattern which has a particular name. This is an act of interpretation, based on some commonly held opinions about poetry. (For that matter, to call a series of words a poem at all is to engage in an act of interpretation.)

The concept of the interpretive community arises from this awareness, that we understand things--find meaning--because of the things we have been taught to see. Not all
of these things are so formal as "what is and is not a poem," for we belong to more than one interpretive community, in a kind of situational ethics of reading.

Fish perhaps best sums this up in the preface to Is There a Text in This Class?

The answer this book gives to its title question is "there is and there isn't." There isn't a text in this or any other class if one means by text what E. D. Hirsch and others mean by it, "an entity which always remains the same from one moment to the next" (Validity in Interpretation, p. 46); but there is a text in this and every class if one means by text the structure of meanings that is obvious and inescapable from the perspective of whatever interpretive assumptions happen to be in force.19

The same reader can approach a Shakespearean play or Scientific American, but the perspective of interpretive assumptions is different in each case. There isn't really anything different, aside from vocabulary, about the language each uses. What is different is the way the reader perceives that language, and that perception is shaped by his education.

The technical writer is very much a member of an interpretive community, frequently being paid (as we saw in the last chapter) for that interpretation. He sees only what he is taught to see (or, better, has learned to see). A technician may look at a manual much as the way a Shakespearean scholar might look at Rosencrantz and
Guildenstearn are Dead: given the same material as another reader, he is capable of seeing more, or at least differently. In some circumstances, for example, it has become customary to include the schematic of a device in its user's manual, even though it may be meaningless to the user. Yet, given that schematic alone, the technician may be able to turn a user's manual into a repair manual, in effect creating his own text. User and technician, in any case, share such overlapping concepts as "volume control," "speaker," etc.

Writers are readers, and the technical writer chooses what he includes in a manual or a report on the basis of what he would himself expect to see, if he were in the position of the intended reader. He can make those decisions because of the common areas of "what things mean," yet deciding what those common areas are is also an interpretation. As in the example above, the technical writer may also be able to rely on the ability of others to interpret, much as a novelist might rely on the imagination of his readers to imagine a particular scene.

What develops here is that the nature of a writer's community is partially decided by the way he reads and how he perceives others read, that he can include some information that will be of use to a few but not all, and that he
can rely to a certain extent on the interpretive abilities of at least some of his readers.

Technical writers are not, despite the high degree of specialization of their subject matter, limited to a single interpretive community any more than anyone else. Experts in some matters, they are laymen in others. As time passes, as an individual gathers more information and makes more interpretations, the number and variety of the communities in which he might claim membership grows. Education itself is a process of community-making, and one of the purposes of a varied education is to enlarge the range of possible communities. This is what makes it possible for members of one community to talk to another. There is common ground in many places: the physicist must use computers in his work, and the programmer has studied physics.

Becoming a member of an interpretive community requires that one learn not only the "facts," but how they are communicated. The best way to do that is to communicate: to read, to write, to talk. To learn to address a specific group of readers requires learning where they fit in, or do not fit in, to the community thus defined, and this can also be done by active communication about (or even with) those readers.
Chapter 5: Wolfgang Iser

*The Act of Reading: A Theory of Aesthetic Response* presents Wolfgang Iser's theoretical position. For Iser, like the early Fish, the text is very much present as an object. There is, of course, something about the text that encourages meaning, but

So long as the focal point of interest was the author's intention, or the contemporary, psychological, social, or historical meaning of the text, or the way in which it was constructed, it scarcely seemed to occur to critics that the text could only have a meaning when it was read. Of course, this was something everyone took for granted, and yet we know surprisingly little of what we are taking for granted. One thing that is clear is that reading is the essential precondition for all processes of literary interpretation. (p. 20)

Iser contends that it is in the reader that the text comes to life, and he calls the thing created in the reader the "aesthetic object."

For Iser, reading is not mere internalization, but a dynamic interaction between text and reader, with the author and the reader sharing in the "game of imagination." He points out that there are limits to a reader's willingness to participate, with boredom and overstrain representing the "two poles of tolerance." (p. 108) The aesthetic object is a joint effort.
Iser disagrees with the approach to criticism that conceives of a single meaning, an ideal standard objectively embodied in the text. First, such an approach is based on external frames of reference, which are themselves "as often as not" based on sophisticated subjectivity, so that the success of such an interpretation is based on the very thing it claims to eliminate. Second, even if we were to accept that there was an ideal standard objectively embodied in the work, this would still tell us nothing about the adequacy of the reader's comprehension of this standard. And who is to decide on the ideality of the standard, the objectivity of the embodiment, or the adequacy of the interpretation? The natural reply would be the critic, but he, too, is a reader, and all his judgments are based on his reading. (pp. 23-24)

Simply because a critic can find objective evidence to support subjective preferences, the evidence doesn't make the value judgment itself objective.

Thus, Iser can challenge Wimsatt and Beardsley's criticism of the "affective fallacy," which they define as a confusion between the poem and its results (what it is and what it does). ...It begins by trying to derive the standards of criticism from the psychological effect of the poem and ends in impressionism and relativism. The outcome ... is that the poem itself, as an object of specifically critical judgment, tends to disappear." 21 by suggesting that this "fallacy" is no different from "the definition they accept as apposite for the study of literature" (p. 26). Iser says that their criticism of this so-
called fallacy is justified, however, when the work really is confused with the result. But it is only because the literary work itself at least potentially prestructures the results that such a confusion can happen. It is the "actualizing" of the text, the performance rather than the result, which is the object of Iser's attention.

Iser goes on to point out that whenever "we analyze a text, we never deal with a text pure and simple, but inevitably apply a frame of reference specifically chosen for our analysis." (p. 53) Both the interpreter and what is interpreted have frames of reference, built up of social and verbal conventions. Iser refers to the collection of material selected from social systems and literary traditions as the "repertoire" of the text. The text, however, can never be grasped as a whole; you cannot see all of the conventions at once, but move from perspective to perspective as you read. Iser calls this the "wandering viewpoint."

Perspectives continually interweave and interact; Iser uses the term "theme" to describe the perspective a reader is involved with at any one moment, and the term "horizon" to describe what the reader has come upon so far and what he expects to see next. The natural limitations of memory and of predictability bound a theme's horizon.
Iser says that

the structure of theme and horizon allows all positions to be observed, expanded, and changed. Our attitude toward each theme is influenced by the horizon of past themes, and as each theme itself becomes part of the horizon during the time-flow of our reading, so it, too, exerts an influence on subsequent themes. Each change denotes not a loss but an enrichment, as attitudes are at one and the same time refined and broadened. It is the resultant accumulation of equivalences that constitutes the aesthetic object. (p. 99)

The interaction and interrelation of textual perspectives invites making specific connections between them, and it is the reader who "unfolds the network of possible connections, and it is the reader who then makes a selection from that network." (p. 126) Yet, the connections that are rejected still remain as possibilities, are still "there" on the fringes.

One thing the "wandering viewpoint" points up is the temporal nature of meaning. Past, present, and future are synthesized as the reader goes along. More important, the second reading of a text never has the same effect as the first, because the assemblage of meaning from the first reading must influence the second. The reader has knowledge he didn't have before. Even a critic must draw on hindsight to reconstruct what influenced his understanding the first time he read the work.
Meaning is not always made by denotation, it is also made by connotation. It is made of things pointedly not referred to or even negated as well as those things explicitly stated. As such things arise in reading, they set up patterns of meaning or potential meaning, which become "closed" to the degree they relieve the tensions between the elements of such a grouping.

Indeterminacy and "gaps" exist; the lack of a sign is also a sign, and when the reader bridges the gaps, fills in the blanks, communication takes place.

Blanks leave open the connections between perspectives in the text, and so spur the reader into coordinating these perspectives—in other words, they induce the reader to perform basic operations within the text. (p. 169)

Blanks indicate that different sections of a text are to be connected, even if the text doesn't say so. In a mystery story, for example, various details aren't tied together until the last chapter, but a reader might be able to piece them together and see through the story in advance.

Iser sets up an interesting contrast between fiction, conversation, and expository texts. In conversation, a person can ask questions of another to fill in the blanks. In expository writing, the object is to narrow down rather than to expand possibilities, aiming to fulfill a specific intention in relation to a specific thing—to fill in the
blanks. In fiction, the blanks serve to expand possibilities, inviting the making of connections creatively. (pp. 184-5)

Iser sees the blank as pivotal, for it induces and guides the reader's constitutive activity.

The basic function of the blank in the referential fields of the reader's viewpoint is to enable different segments of the text to be joined together and, through their reciprocal influence, to be transformed into a feature of the aesthetic object. (p. 205)

The "repertoire" of a text incorporates a specific reality into the text, but in negation, such a norm is alluded to and its validity brought into question. Since it has been called into view, it is "there," but its usual value is negated.

The various types of negation invoke familiar or determinate elements only to cancel them out. What is canceled, however, remains in view, and thus brings about modifications in the reader's attitude toward what is familiar or determinate—*in other words, he is guided to adopt a position in relation to the text.* (p. 169)

In contrast, negativity is what blanks and negations constitute. The basic premise of communication is that there is something the communicators do not share; making the connections is how communication is effected.

Communication would be unnecessary if that which is to be communicated were not to some extent unfamiliar. Thus fiction may be defined as a form of communication, since it brings into the world some-
thing which is not already there. This something must reveal itself if it is to be comprehended. (p. 229)

The situations that Iser describes arise in scientific writing as well as in fiction. A letter to the editor of a recent popular science magazine comments that a certain well-known astronomer still believes in the "steady state" theory of the universe, in which the universe is neither getting bigger nor smaller. Most astronomers today believe in one version or another of the "big bang" theory, in which the universe began as a massive explosion of energy into matter from a single, infinitesimally small point. The suggestion seems to be that popularity doesn't make a theory true, and that the astronomer isn't necessarily an "old fogey." The letter hardly needed to mention the "Big Bang," and it certainly didn't have to explain the theory, because it is part of the repertoire.

As noted above, Iser believes that the object of expository writing (of which technical writing is a subset) is to fill in the blanks, to narrow the range of possible meanings. This is not always true; for example, Mitchell's Subclass 3 writing may purposely fail to draw conclusions, leaving this as a gap for the executive to fill in on his own. Even math texts have been known to skip "obvious" steps, or to leave the completion of a calculation "to the
student." The example in the previous paragraph shows an example of negation.

Of primary importance is the concept of the "wandering viewpoint." An idea presented on the first page of a report will not be as fresh in the mind of the reader who is deep into the report as the page he has just read. In addition, and in much the same manner as the reader of a mystery, the reader may be able to anticipate what is to come on the next page. Just as with the mystery novel, the reader may be wrong, but the anticipation is still available, and the reader will expect to be suitably convinced that he is wrong.

These concepts apply to technical writing because technical writing is read. It is especially important for a technical writer (as for any other) to keep the sequential nature of reading in mind, because reports are frequently not written in the same sequence in which they are read. It is also important to understand what the repertoire of a given paper is, and that it will differ for various readerships—including virtually the whole field of endeavor for colleagues (Mitchell's Subclass 1). Some blanks cannot be left for executives to fill in; some negations will not serve their purpose. Lastly, there must be something to be communicated, some area of unfamiliarity in which the writer
is making the connections for (or making them available to) the reader.
In *Is There a Text in this Class?*, Stanley Fish chronicles and comments on his evolving viewpoint on reader response, which grew into the concept of the interpretive community. That these essays are the autobiography of a developing thought is important:

What interests me about many of the essays collected here is the fact that I could not have written them today. (p. 1)

Fish says, in his introduction, that his critical attitude originally sprang from a realization that if meaning is embedded in the text, the reader's responsibilities are limited to the job of getting it out; but if meaning develops, and if it develops in a dynamic relationship with the reader's expectations, projections, conclusions, judgments, and assumptions, these activities (the things the reader does) are not merely instrumental, or mechanical, but essential, and the act of description must both begin and end with them. (pp. 3-4)

Fish initially defines his method in "Literature in the Reader: Affective Stylistics" as a refusal to say or even ask what a work is about, an analysis not of formal features but of the way a reader responds to the words as he comes upon them, which results in "a description of the structure of response which may have an oblique or even ... a contrasting relationship to the structure of the work as a thing in itself." (p. 42)
In the beginning, Fish felt a need to answer charges that centering on the reader would lead to anarchy because of the reader's basic subjectivity. He responds to the objection represented by the "affective fallacy" by noting, first of all, that he is not talking about simple emotional responses, but about all of the activities in which the reader engages. Further, the "cumulative pressures of the reading experience" constrain the number of possible responses, so they are not completely subjective. Moreover, the reader Fish refers to (at this point) is an ideal, who might best be defined as an educated reader, one who possesses both linguistic and literary competence. He argues that any reading is, in the end, subjective (within the given constraints), and says that he would rather have "an acknowledged and controlled subjectivity than an objectivity which is finally an illusion." (p. 49)

Fish later found fault with this essay because he contradicts himself in it by insisting on the freedom of the reader to respond, while also insisting on the text itself as an objective thing with definable features to which the reader responds.

An example (used in a later essay) of Fish's method is taken from Milton's "Lycidas":

The willows and the hazel copses green
Fish points out that the impression the first two lines give is that the willows and hazel copses will no longer be seen by anyone; the next line changes this notion into a realization that it is Lycidas who will no longer be seen. This is the sort of about-face which interests Fish, for it is his "thesis that the reader is always making sense," in the literal sense of the word. (p. 162)

In time, Fish moves further away from this contradictory position, by dropping "the assumption that subjectivity is an ever present danger and that any critical procedure must include a mechanism for holding it in check." (p. 9) Fish says that it was this assumption that had lead him to attack stylistics. If one conceives of the reader as an individual alone in the universe, then he can go off in "any direction one likes." But people don't exist in a vacuum.

The idea of a community of readers appears later in his writing. It began, in fact, with the need to define the ideal reader, which itself developed first from the observed fact that some readers do reach agreement, on some things at least. That level on which we can agree is the reading experience Fish aims at; the secondary level, where we ponder the text and attempt to assign meanings is (at least
at this stage in his thought) interpretation. For example, while most people agree that Hamlet puts off his revenge, few agree on what this means. To ask (and attempt to answer) "what this means" is an interpretive, not a reading, act.

While he hadn't yet thought through the ramifications, Fish made strong use of the concept of community in "How Ordinary is Ordinary Language?" Trying to distinguish between "ordinary" language and "literary" language implies that one is a norm and the other a deviation. Fish contends that there is no difference; literature is language, and all language is a part of human behavior. What makes literature stand out is our attitude toward it: "The difference lies not in the language but in ourselves." (p. 109) The evaluative criteria that "identify" literature are not absolutes:

All aesthetics . . . are local and conventional rather than universal, reflecting a collective decision as to what will count as literature, a decision that will be in force only so long as a community of readers . . . continues to abide by it. (p. 109)

What he had not thought through, at the time, was that his own aesthetic, his own way at looking at literature, wasn't any more "right" than another, it was simply different.

The dichotomy Fish saw in, on one hand, insisting on the reader's freedom to respond and, on the other, insisting
on the ability of an objective text to restrain that freedom came to a head in "Interpreting the Variorum."

Fish himself describes this essay as a self-consuming artifact (p. 147). It is written in three sections, the first of which defends his form of analysis, saying that the moment-by-moment making of sense a reader does is lost in a formalist analysis. In the second section, he has come to realize that "what disappears in a formalist analysis is the moment that has been made to appear in another kind of analysis, the kind of analysis I was urging in this essay." (p. 147) Fish notes that the "facts" as he sees them in his own analysis (such as premature conclusions) are created by the criticism he practices, not discovered by it.

I "saw" what my interpretive principles permitted or directed me to see, and then I turned around and attributed what I had "seen" to a text and an intention. What my principles direct me to "see" are readers performing acts; the points at which I find (or to be more precise, declare) those acts to have been performed become (by slight of hand) demarcations in the text; those demarcations are then available for the designation "formal features," and as formal features they can be (illegitimately) assigned the responsibility for producing the interpretation which in fact produced them. (p. 163)

The concept of "what is really happening" is, itself, an interpretation.

Fish then found a need to address "the problem of accounting for the agreement readers often reach and for the
principled ways in which they disagree." (p. 148) If readers make (or write) the text because of the interpretive strategies they bring to bear, how can one reader have different opinions at different times, and how can two readers have the same opinion? Fish's answer is, "they don't have to." (p. 170) They can and do because of the existence of interpretive communities. Readings can be stable between different readers because they belong to the same interpretive community, and a single reader can employ differing interpretive strategies because he belongs to different communities. He goes further to say that

It also explains why there are disagreements and why they can be debated in a principled way; not because of a stability in texts, but because of a stability in the makeup of interpretive communities and therefore in the opposing positions they make possible. ... while the alignments are not permanent, they are always there. (p. 171-2)

Further, there is nothing "natural" about interpretive strategies: they are learned.

Generations of children, learning to read the King James Bible, have interpreted the direction to "go into your closet and pray" to mean they should go into the small room where their clothes are hung. As they grow older, they learn that "closet" would be better translated as "room." While this could be counted as a simple linguistic misunderstanding, Fish would still call it an interpretation.
Given that interpretation "makes" the text, though, what are the speakers and writers of the world to do? Their goal is to communicate something (and in other places, one would speak of encoding meaning). Fish suggests that, instead,

what utterers do is give hearers and readers the opportunity to make meanings (and texts) by inviting them to put into execution a set of strategies. It is presumed that the invitation will be recognized, and that presumption rests on a projection on the part of a speaker or author of the moves he would make if confronted by the sounds or marks he is uttering or setting down. . . . The very existence of the "marks" is a function of an interpretive community, for they will be recognized (that is, made) only by its members. (p. 173)

One of Fish's concluding essays begins with the anecdote about a fellow professor that named both that essay and his book. A student approached the professor with the question, "Is there a text in this class?" He gave her the title he presumed she wanted. Her response was, "No, no, I mean in this class do we believe in poems and things, or is it just us?" (p. 305). The professor then (knowing Fish) realized that she was one of Fish's former students. Fish's point is that we interpret even "everyday language" according to our expectations. To make the professor's original assumption, one first has to be aware of what a student usually needs to know on the first day of class, such as what book must be bought. When he found out otherwise, the
professor had to make a shift in interpretive strategies, to answer the question in the light of what he knows about Stanley Fish.

Fish points out that readers expect, project, conclude, judge, and assume as they read—and they do this whether they are reading a poem or a report on Soviet air defenses. It's especially easy for a technical writer to think of the fruit of his labors as a thing, a fait accompli. Like a bridge, it is simply there. Yet, also like a bridge, it is meant to be used: it isn't really a bridge until something has traveled across it. The activities in which a reader engages are truly part of the material with which the final product is made.

Whether literature, scientific, or everyday writing is at hand, readers still interpret on the basis of what they know, creating something beyond the printed text. The math student who mentally takes the steps left out of a proof or who completes the calculation "left to the student" is in fact doing what the writer wanted, even though the material is certainly not "in" the text. (It is easier to apply Fish's term of "text" to Iser's term "aesthetic object" to technical writing, yet there are certainly aesthetics to technical writing as well.)
Readers don't work in a vacuum, and neither do writers. After the first few examples, math students are often left to do the proofs themselves, without being asked. It has become an interpretive principle for the student to continue the line of reasoning. Membership in an interpretive community is based not only on sheer data, but on interpretive strategies like this.

People see what they learn to see (and want to see); this is Fish's main point. Perhaps the most controversial issue today is whether a nuclear freeze or nuclear "deterrence" is the best way to prevent all-out nuclear war. Members of each camp can look at a report on the "survivability" of a missile system (the likelihood that it will still be in working order after a nuclear strike is directed at it) and come to radically different conclusions. One side will say, if you can't absolutely guarantee the missiles' survival, they have no deterrence value and should be abandoned. The other side will say that there is safety in numbers and in dispersion--after all, the adversary can't get all of the missiles at once (especially if it doesn't know where they all are), so it would be foolhardy of them to initiate a "first strike."

Well-crafted technical writing displays an awareness of the writer's own stance as well as an awareness of pos-
sible opposing viewpoints—an awareness of one's position within an interpretive community and its relationship to other communities. It takes advantage of the reading process, rather than falling victim to it, recognizing the possibility of subjectivity, as well as scientific objectivity.
Chapter 7: The Writer as Reader

Ruth Mitchell's three subclasses of technical writing (Subclass 1, "technical writing as advertised"; Subclass 2, instructions, how-to writing, formal documents; and Subclass 3, writing for decisionmakers) serve to emphasize the importance of attending to a reader's needs. That is, after all, what a technical writer is paid to do. All of Mitchell's categories are defined by who is interpreting what for whom and why. The "what" need not be a text in the literary sense, but it is something about which the writer needs to communicate to an audience. Moreover, the specific driving factors that separate the subgenres are purpose and audience; an astronomer may be called upon to discuss black holes for an agency to obtain a grant or for hobbyists in Astronomy magazine.

Yet, even as we use the term audience, we need to consider who—or what—we mean by the term. In the most blunt sense, as Walter Ong pointed out, a writer's audience is always a fiction, even if the text is written for an individual well known to the writer. Most of the essays in The Reader in the Text deal with the fictionalized reader. There is, however, always a real reader or group of readers, which is the point of writing in the first place. It is
possible for the fictionalized audience to match very well with at least some of the real audience. For any writer, fictionalizing an audience is a creative act, but it is done within the contexts of shared understandings. Douglas Park believes that what a writer is really doing is creating contexts into which a real reader can fit himself.

In "Do Readers Make Meaning?", Robert Crosman notes that the very act of writing requires that we read:

As a writer I begin with a jumble of purposes, ideas, and words that can only be examined by the activity of putting them on paper and reading them off. The physical acts of pushing my pencil over the paper, and of casting my eye over the markings thus made, may be called by different names, but in practice they are inseparable. The very act of writing includes reading.23

Crosman is seeking to counteract the notion that an author is somehow in touch with Truth, a wordless realm, which he somehow wraps up into a neat package of words. Still, most writers do read what they write, both as they write it and as they (theoretically) revise it. A writer is his or her own first editor, making critical judgments about what has been said and what is left to be said (perhaps even more critical in the pejorative sense than other readers would be).

Moreover, whether they are novelists or technical writers, they are also readers in the general sense. Dr.
Johnson once said that he never desired to converse with a man who had written more than he had read.

Writers learn the more advanced points of their language from reading, picking up the finer points (one hopes) of the English language, as well as technical concepts and jargon. They gather general information as well as highly specialized data in their own disciplines and hobbies. They are gathering social and literary conventions as well, even if the field is, say, chemistry. Technical reports, for example, tend to use the passive voice exclusively, even when it is awkward to do so. Of itself, this appears to amount only to a writing convention, but it is also a reflection of the social convention of scientific objectivity: it distances personality from the data.

Once a person completes his formal education (at whatever level), he can stay in touch with changes in the information and opinions of his profession by reading: formal reports, journals, conference proceedings, books, newsletters, newspapers, magazines, even watching television. Creative and technical writers alike have a wide variety of publications dealing with their specific concerns.

In this way, any reader becomes a member of an interpretive community (usually more than one, according to the
range of interests). In a sense, Iser's "theme and horizon" structure consists of one's lifework. There is more to becoming part of an interpretive community. The give and take of oral communication and critiques of written communication play a large part. Someone schooled in formalist criticism, for example, has had to write numerous papers during his career as student and critic; the criticism he has received himself has honed his skills as a reader as well as a writer.

Regardless of the field, reading in his subject area increases the base from which which a person makes judgments about what he reads—a very real form of interpretation. Nonfiction writing is often about interpretation in a special sense: having read what others wrote, and having worked in the specific field, the writer is now ready to share what he has learned. What he shares may be a new slant on old material, or it may be the result of a series of experiments, but in either case it involves interpreting something in the light of the experiences he has gained as a student, a reader, and a worker.

Thus, writers are readers in two senses: they gather data through reading and they read in the sense of interpreting (whether this is English text or page after page of data). In a very real sense, the kind of technical
writing that reports such interpretations is closest to literary criticism.

As Fish's anecdote about his fellow professor points out, we interpret as a part of daily life. All communication requires that we make sense of symbols, and it is no different in technical writing. Communities are based on agreements about what the symbols are and what they mean, but there can be overlap between them, and we can each belong to more than one at the same time. For example, the word vector means radically different things to a mathematician and an entomologist. The entomologist, however, may also be a pilot, in which case he would be aware of the aeronautical definition of vector, which is closely related to the mathematical definition.

If we come to the realization that our particular point of view is not the only one, and if we can come to an understanding of what our point of view is and how we attained it, we can begin to understand how to assimilate another point of view and how to help another assimilate ours. Full membership in an interpretive community doesn't come overnight, but if a writer must write for another community, there is at least the point of overlap of the subject at hand.
A technical writer is two things at once: a member of a highly specialized field of knowledge and a writer. If he did not have specialized knowledge suited to the task at hand, he would not be a "technical" writer. If he had no skill as a writer, he might be considered an engineer or a technician, but not a writer. In his person, two areas of thinking merge into a third interpretive community. He is successful as a technical writer inasmuch as he has absorbed the skills of English in addition to chemistry, engineering, law, or what have you.

Technical writers learn a great deal from what they read, even if it is purely technical material. They learn the conventions and style (that is why so many fall prey to gobbledygook; it begins to look natural), they gather opinions as well as facts. After a time, if they read broadly enough, they gain a sense of audience as well, by seeing their own reaction to the writing in other fields than their own. What emerges is a sense of personal interpretive space, a sense of where a personal, expanding universe overlaps other universes. Technical writing is a means of expanding the area of overlap.
Chapter 8: Conclusions

The moment-by-moment examination of the responses of a highly sophisticated reader that marks Stanley Fish's criticism and the complex psychological and philosophical discussions of Wolfgang Iser are not, by themselves, very useful to the technical writer. The very idea that a reader is even likely to pay such minute attention could be nothing but daunting to a fledgling writer. It is the broader ideas that Fish and Iser share that can be very useful, for the simple reason that any writer is himself a reader, a member of an interpretive community.

As Crosman points out, writers are also readers. Just as there are communities of readers, there are also communities of writers. Sometimes they are the same; usually they overlap at least a little. When a writer is addressing an interpretive community of which he is a part, he need have little concern about that particular audience. Difficulties, especially when technical writing is the matter at hand, arise when a writer must address communities other than his own.

As Fish suggests about readers, the writer's simple awareness of himself as an interpreter is itself valuable. A self analysis might lead to a closer realization of just
what sorts of communities the individual writer belongs to, where and when these come into play in his own reading. A student writer needs to begin with an analysis like this before he can assess the needs of others. Given this ammunition, he can ask other questions.

The specific discussions about the way we read also have important implications. First, that we "see" only what we have been taught to see implies that the writer needs to be aware that "obvious" is not obvious to everyone. A corollary is that what seems to be essential information is not always so. Second, reading, like education, proceeds in time. Occasionally, a document may be set up as a reference work, but most are meant to be read page by page. There is only so much a reader can keep in mind at any one time, but what has been read affects the reader's opinion of what is to come. Third, the effectiveness of blanks and negations depends on the familiarity of the reader with the material.

What becomes necessary is a self examination, a personal realization that I am in fact performing interpretation, that my opinion is valid within the limitations of the interpretive community I have been trained in, and that I can learn to respond to the needs of other interpretive communities in the same way I learned to respond to my own. The last item need not be daunting, because no one ever has
to start from the ground up; since I am at least assured that the reader is interested in the subject, our separate communities overlap at least that much.

Once the writer is aware of where he is coming from, the next step is to find out where the reader is coming from. The way to do that is to read, write, and discuss. Just as I learned formalist criticism by reading critical works, discussing literature in class, and writing papers about the literature I read, I can learn (for example) Fish's style of criticism by reading his work, talking it over with colleagues, and writing similar criticism (and, in turn, being critiqued). In the same way, a new engineer can read what his colleagues have written for a particular customer, discuss both the customer and the reports, and begin to write.

This may seem the obvious thing to do, but it doesn't always happen this way in practice. What it takes to begin with is a realization that much of the writing done in the workplace is not Mitchell's Subclass 1, not intended for people who know only one meaning for the word vector or who share a common belief in the value of strategic weapons in deterrence.

What is needed is an understanding of the way readers make meaning, that connotation is as important as denotation
even in highly technical material. That understanding can be gained by the sort of self examination reader-response critics are almost forced to do when they examine texts in detail. On this level, the writer can examine how he himself reads, in detail if he wishes. He can then ask questions like, "If I find this confusing, or redundant, or clumsy, won't someone else?"

Reader-response critics engage in an examination of self as reader which is saved from anarchical subjectivity by the realization that they (like all critics) are not working in a vacuum, but are influenced by the communal agreements about meaning that develop from earliest language-learning in childhood to our last breath. Their province is literature, but this self-examination can be valuable to any reader, as well as to any writer. Armed with such realizations as "If I don't understand this, others won't," the writer is better able to discover and respond to the needs of any intended reader.

Technical writers are members of interpretive communities. The boundaries of an individual's membership are set by the kinds and depth of the subjects he has studied, including writing itself. To be able to respond to members of differing (though rarely completely different) communities, he must learn enough about that audience to see where
the areas of informational and interpretive overlap lie. Where instinct and experience are not sufficient, research can help give this sense; the technical writer can read material already written for (or by) the group, and he can discuss the task with colleagues or members of the intended group. This is itself an act of interpretation, and the skill required must be learned, as all acts of interpretation must be learned. The object of the finished product is to increase the area of "overlap," to effect communication by telling the recipient something he doesn't already know.

The technical writer, per se, is in the position of being a full member of at least two communities, well acquainted with two sets of skills: writing and at least one highly specialized discipline. Writing provides the medium of exchange, and the discipline provides the technical interpretive community. No one exists solely within one community, and in this context the technical discipline has the priority.

This situation is not unusual; for example, advanced mathematics and physics are usually studied in tandem, because the physics provides a context for the mathematics. In the same way, technical writing needs to be studied in tandem with the chosen technical field, to provide a context. For this reason, the cross-disciplinary mode of
writing education (as Mitchell suggests and MIT practices) is essential, and serves the additional purpose of providing a live, nontechnical audience.

A skilled technical writer represents a distinct group of abilities. He possesses the symbology and at least some of the practical skills, the interpretive stance, of one or more highly specialized fields, as well as the ability to communicate those ideas within a community and to members of other communities. Well crafted technical writing is sensitive not only to purpose and form, but to the needs of the recipient. Indeed, the needs of the recipient dictate purpose and form. Such an awareness is the beginning of a skill in discovering the specific needs of any audience, any "customer." This skill can be taught, but not completely outside of the field of specialization. It also cannot be taught exclusively within the field of specialization, because the writing that arises "naturally" from within the field is tailored to fit only that field. In essence, "technical writing" itself constitutes an interpretive community.
NOTES

1. For the sake of simplicity, I have chosen to use the masculine personal pronoun throughout, except where otherwise necessary.


19 Stanley Fish, Is There a Text in This Class? (Cambridge, Mass.: Harvard University Press, 1980), p. vii. All further references to this work appear in the text.


WORKS CONSULTED


Fish, Stanley. *Is There a Text in This Class?: The Authority of Interpretive Communities*. Cambridge, Mass.: Harvard University Press, 1980.


