Invention in Technical Communication:
An Annotated Bibliography

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Invention in Technical Communication

Rhetoric, in the classical sense, can be traced to ancient times. Aristotle was the first philosopher to develop a method or sequence of operations designed to teach students effective techniques for presenting arguments intended to persuade their audiences. Rhetorical practice evolves from an oral culture when the credibility of an argument was weighted according to the appeal used by the speaker. Ethos emphasized the character of the speaker, logos were based on logic, and arguments based on pathos carried an appeal to the emotions. In general, the strength of the argument followed the order of ethos, logos, and finally, pathos. In more recent arguments requiring persuasion, authors make use of whichever appeal is appropriate to the context.

Teachers of classical rhetoric relied on five canons as a method of developing an argument: invention, memory, arrangement, style, and delivery. The first of the five canons of rhetoric, invention, over time has attracted varying degrees of interest and has been assigned more or less importance according to accepted theories of the times. In classical times, invention was tied to memory. With the invention of the printing press, however, memory became less important; and consequently, the focus on invention disappeared as well. According to Richard Young, invention theorists such as Kenneth Burke, D. Gordon Rohman, and Kenneth Pike have all developed methods are intended to aid the writing process. Although the purpose of their methods was different, the function of each method emulates the function of classical rhetoric (Heilker). Although Young's discussion excludes eighteenth and nineteenth century theories, invention's role in discourse, spoken or written, has never really disappeared at all (Crowley).

If we consider that invention is the art of finding the best possible means to persuade, we must realize invention is so inherent in the concept of argument and persuasion that it is impossible to deliver a speech or to write persuasively without it. Many types of communication rely on persuasion that demands innovative ways of making similar statements, which is exactly what invention accomplishes—finding the best possible means to deliver an effective message. In classical terms, ethos establishes trust between the speaker and the audience. Likewise, persuasion in technical writing requires the written work to establish a level credibility that creates confidence in the object of discussion.

Technical writing has a long history, one that even precedes the discovery of important fundamental scientific devices (Eisenstein). Historically, technical writing has been associated with scientific or technological involving procedures, specifications, instructions, reports, and an indefinite number of other documents that mainly served the purpose of presenting information to a reader for the purpose of explanation or instruction. With the expansion of its application over

the last half of the past century, however, technical writing has broadened its definition to include a myriad of other types of communication. Because technical writing is audience based, it is essential to develop strategies that appeal to many audiences (Lay). Although writers may have different interpretations of the role their audiences fill, the importance of audience is undisputed. It is important, therefore, to expand our conception of audience (Ede and Lunsford).

The role of invention in technical writing is debatable. There are those who believe invention in technical writing serves the same function that it does in other writing. But others believe that technical writers follow similar strategies that other writers follow except for using invention to develop a topic (Winsor). Based on the opposing views about how technical writers use invention, the term requires a definition that represents various opposing concepts.

Currently, multimedia communication requires an appeal to audiences that requires new and appealing ways of delivering a message that captures the attention of a many kind of audience. Consequently, finding these new and appealing messages arguments justifies re-evaluating the role of invention in current technical communication.

BIBLIOGRAPHY

Crowley, Sharon. <u>The Methodical Memory: Invention in Current Traditional Rhetoric</u>. Southern Illinois University Press, 1990.

This book provides a historical examination of the changing role of invention based on theoretical models through the ages. Dr. Crowley distinguishes differences between the classical definition invention, which was part of the rhetorical process, and modern invention, which is more grounded in theory. Eventually, scientific theory replaced the subjective human aspect of presenting arguments, the emphasis on language to support content in discourse diminished. In this book, Crowley provides information that explains and challenges the changing theories.

Ede, Lisa and Andrea Lunsford. "Audience Addressed/Audience Invoked: The Role of Audience in Composition Theory and Pedagogy." <u>Composition in Four Keys</u>. Ed. Mark Wiley, Barbara Gleason, Louise Wetherbee Phelps. Mayfield Publishing, California 1996.

Ede and Lunsford discuss the role of audience as viewed by scholars from different rhetorical groups who base their opinion on certain theories of how knowledge and the ability to compose are achieved. The examples presented in the article show that because the different views overlap, an enhanced analysis of audience is in demand.

Eisenstein, Elizabeth. <u>The Printing Press As an Agent of Change</u>. Cambridge University Press, 1997.

Eisenstein's book is a landmark publication that presents a detailed history of the printing press, its influence on literacy, and the impact it has had on writing. One chapter is devoted to technical literature. The introduction of the printing press created a profound change within the scholarly community and in the nature of data collection. University professors were the first to use the new method of recording scholastic information. Even those who rejected the new technology were not inclined to avoid the benefit of printed material. The printing technology was well established by the time early scientist such as Galileo began working on their revolutionary discoveries.

Bushman, Donald E. "Invention." <u>Keywords in Composition</u>. Ed. Paul Heilker and Peter Vandenberg Mayfield Publishing Company, California, 1996.

The book <u>Keywords in Composition</u> contains explicated definitions for terms used in discussing rhetoric and composition theory. Each definition is the contribution of various scholars in the field. Definitions are supported by citations relevant to the topic and from recognized and accepted academic sources. Bushman presents the varying definitions of invention theorists attach to the methods they use to perform the function of invention. He also uses analyses from other scholarss such as Richard Young and Sharon Crowley to discuss the limitations of any one description of the role invention plays in contemporary

Lay, Mary M. et al. <u>Technical Communication</u>. McGraw Hill. 2000.

<u>Technical Communication</u> is a comprehensive publication that provides background discussions, explanations, examples, and illustrations for topics associated with technical communication.

Roundy, Nancy and David Mair. "The Composing Process of Technical Writers: A Preliminary Study." http://jac.gsu.edu/jac/3/Articles/10.htm JAC 3 1983.

Seventy writers, including professionals working in technical disciplines and technical writing students were surveyed to determine whether technical writers conform to the writing process of other experienced writers. The results of this study show that while technical writers follow similar writing strategies similar to other experienced writers, they differ in developing a topic. While other experienced writers use invention to develop a topic and to generate knowledge, technical writers begin their writing tasks with a deliberate purpose. The topic and content are pre-determined.

Winsor, D. A. "Invention and Writing in Technical Work." <u>Written Communication</u>. Vol.11 No. 2, April 1994, 227-250.

Winsor designed this study to investigate a claim that technical work replaces invention in writing. She used thee senior level engineering students, who had worked as part time engineers, to participate in a problem-solving project designed by an engineering professor. Winsor was interested in whether the theory that the problem-solving nature of technical work actually replaced invention as it is understood to mean generating knowledge or determining a topic.