

2 ASSESSING SOURCES FOR TECHNICAL COMMUNICATION RESEARCH

Therese I. Pennell

As academic writers, your technical communication research papers will require that you use reliable sources to understand your topic and support your argument.¹ This chapter provides you with tips on assessing sources to complete these types of papers. In high school you learned how to search for sources, parse out websites based on your domain anchors (.com versus .org, versus .gov), and streamline your work based on ideas from sources. These are important strategies, but your technical communication research papers require sources that are accurate, timely, relevant, focused, and rigorously documented. In college you have greater access to more academic resources, and at this level your technical communication documents require more demanding research standards. You are tasked with assessing sources to meet these standards.

This chapter helps identify the multiplicity of sources you can use, categorizes them based on the rigor of publication, and helps you understand when and how to incorporate one or more sources within your paper to support your claim. You will also find information on using rhetorical reading strategies to help determine a source's credibility and relevance. This chapter provides examples that illustrate how to begin the research process and how to use valid and accurate information to meet the requirements for technical communication research.

So, you're going to do research. Research in college can be an intimidating process. The assignments require deep investigation, and the standards can seem vague or else perplexing. You will come across

¹ This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License (CC BY-NC-ND 4.0) and is subject to the Writing Spaces Terms of Use. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>, email info@creativecommons.org, or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA. To view the Writing Spaces Terms of Use, visit <http://writingspaces.org/terms-of-use>.

terms you may not be familiar with and tools you have never used before to complete your research-based assignments. If you complete these assignments citing sources you may have quickly gleaned from a Google search, your instructors may be less than impressed. This chapter will help you in assessing sources for your research. This chapter introduces you to rhetorical reading that provides you with strategies to identify important ideas about the sources you should be using. We look at the different types of sources available to you, and the standards the sources should meet before including them to support your arguments.

Let's begin with the type of research you may complete. Embarking on research can mean you will be doing one of two things or both:

1. Primary research
2. Secondary research

So, what's the difference between these two types of research?

Primary research means that you will go out to find evidence and eventually document it. Some tools used to conduct primary research include: interviews, surveys, and observations. For example, if you had an assignment to determine whether your university's website is user-friendly (i.e., the website is designed to be easy to use, so, as a user you should be able to find information you are looking for with as few clicks as possible), you would observe your peers using the website or ask questions via an interview or a survey. In this case you would have to carry out some background research to help you understand your topic and what to look for in creating your research tool.

In secondary research you use research from authors who have already collected evidence/data and are presenting that information in written format. Usually, your assignments for your technical communication courses will require secondary research. An example of an assignment that requires secondary research is to identify and analyze the five types of memos. You would look up sources that provide information about the different types of memos, find sources that provide samples of each, and analyze parts of each memo. The sources you use for this assignment, as the ones in the planning phase for primary research, require some type of assessment. What follows are some tips about how to find reliable sources that provide accurate information.

In high school you would have learned to do quick web searches. And you may have learned that certain websites were more reliable (and so shared more accurate information) about certain topics. So, a website produced by a corporation or commercial entity (.com) would be less reliable

than a website created by a government agency (.gov) on topics cautioning about public health, for example. On the other hand, the corporate website might be more useful to find information about the availability of certain commercial products needed to prevent a public health out-break.

In addition, you should be aware of the source's relationship to the content. In the case of a company presenting their products, as a reader/consumer you should be aware that the company may present a more flattering or biased view of their product. How often do you see advertisements where a product's most advantageous qualities are presented while any disadvantages are conveniently omitted? Commercials where the reach, cost, and quality of a cell phone network are shared, but not that calls are often dropped in rural areas? Similarly, government agencies can present information flattering or biased about some of its policies but neglect to share how it can negatively affect certain groups. For example, enacting stringent immigration policies that they do not reveal contravenes international human rights laws.

The basis of assessing sources, therefore, is that you understand the purpose of your sources and the credentials of the author (in this case, the person or entity that created the website). You are expected to use sources that are credible and reliable for your technical communication research papers. A source that is credible and reliable must be accurate, timely, relevant, focused, and rigorously documented (more on these ideas later).

RHETORICAL READING

You may be wondering at this point, "How will I remember all of this as I am finding my sources?" I must admit that the entire process of assessing sources can seem daunting. But being a technical communication researcher requires a level of responsibility because your research carries weight in your field of study. The process can be made easier using a reading strategy referred to as rhetorical reading. By now in your college career, you may have heard about the rhetorical context, the big three ideas of rhetoric: ethos, pathos, and logos. The rhetorical context, you may know, is an important strategy used to write effectively. And you may ask, "how can it help me with reading?" Aristotle's rhetorical theory was originally to help speakers. Modern researchers adopted it to improve writing strategies, and it is applied to reading as well. Susan K. Miller-Cochran and Rochelle Rodrigo highlight two different types of reading: rhetorical reading and focused reading.

Most of your reading, to this point, may have been finding sources to gather information (Miller-Cochran and Rodrigo 13)- this is focused

reading. Rhetorical reading is reading looking at the context of the source. More than just gathering information, you are seeking out:

- **Ethos:** Who is the author, what is the author's background?
- **Logos:** What is the purpose of the source, what is the argument, how does the author make the argument?
- **Pathos:** Who are the intended readers, in what way does the author try to connect to the reader?

Readers using the rhetorical reading strategy read to more than gather information, they look at the author, argument, audience, and purpose of the document. This type of reading allows you, as the researcher investigating the source, an important pathway to assess your source.

At this point, we should explore the type of sources you will be reading rhetorically. Let's start with what you will find at your library, whether you go to your college library physically or log in through its interface. You should first have an idea about what your topic is: keywords or phrases associated with the topic. Think about it like developing a music playlist. It depends on the occasion you use it for—studying, exercising, cleaning, or meditating. How you search for the music depends on what you plug in to search for it. You also would want to have questions associated with the topic—your research question(s). These, the keywords or phrases associated with the research question, can be shared with a librarian in person or typed in the library's interface search bar to help you identify sources.

SOURCES CATEGORIZED

Once you have established your topic and research question(s), next is to determine the type of sources you can use. Let's start by looking at categories of sources/documents you would find through your research.

- Books
- Academic journals
- Conference proceedings
- Periodicals
- Websites/online documents
- Blogs/wikis/self-published online documents

Your college library would grant you access to a wide assortment of resources from where you can begin your research. This amount of information can be overwhelming. But a good place to begin is by understanding

each type of source. In the next section, you will find a quick description of each type of sources.

BOOKS

Scholarly books are those where an author or authors present original research on a topic. These books are considered credible sources, that is, well researched. Books, as a scholarly resource, can be broken down into two main categories— books written by subject-matter experts or edited collection books.

Books written by subject-matter experts simply mean the author has done a lot of work in the field of research so the author knows the topic very well. Sometimes these books may have more than one author who contribute equally or almost equally to the content. Books can come under different editions (first, second, third . . . tenth editions), this means that the book is published more than once with updated information.

Another type is the edited collection books. These books have an editor or editors who are often subject-matter experts on the topic, but the book includes works by other authors. So, each chapter of the book may be written by different authors who are experts in the specific sub-topics the book covers. In this case, each of these contributing authors usually writes a chapter on their area of expertise. An example of an edited collection is *Solving Problems in Technical Writing* edited by Lynne Beene and Peter White. This particular book has twelve chapters written by different authors, with each author focusing on a specific topic on which they have expertise. The edited collection can also be in a series, meaning there are multiple books with new and different topics under the umbrella topic. An example of the edited collection in a series is *Writing Spaces: Readings on Writing* published by WAC Clearinghouse and edited by Charles Lowe and Pavel Zemliansky. This edited book in a series includes three volumes, the first looking at academic writing in general, the second on the rhetorical situation, and the last focuses on audience considerations.

Before being published and sold in stores, books go through a publication process. It is important to understand this process to better understand what makes books a reliable source. In general, there are three steps:

1. **The editor:** The writer will have an editor associated with the book publisher who among other things makes sure the book is completed on time. This editor also has the book reviewed by multiple experts in the related area, and these experts assess if the research reported is effective and if the book merits publication.

2. **The copyeditor:** After the writer sends in her/his completed manuscript (the complete and polished draft of the document) the copyeditor will proof-read and edit it. The copyeditor looks at grammar, spelling, punctuation, and sentence style.
3. **The Reviewer:** Once the book has been readied to be published, it is revised for style so that it fits the publisher's style guide.

Each step in the process also contributes to confirming the accuracy of different kinds of information—from content presented to grammar and style used—in the book.

While books are considered scholarly and your instructors will see such a resource as prime research, as an academic researcher it is important to check the ethos of the author, especially of single-author books. Is the author well-known in the field the topic covers? Does the author have other publications? Does the author acknowledge any individual(s) for reviewing the book's facts?

Noteworthy is the publication process of edited collection books, these are the books that have an editor(s) but several authors contribute to it. While the publication process is the same, that is, the editor or editors of the book has a publisher's editor, a copyeditor, and style reviewer; the book editor (who is usually an expert in the field) reviews the content of each chapter and in most cases sends the work out for anonymous reviews. An anonymous review means someone else in the field will read it and give feedback on the content. It is referred to as "anonymous" because the reviewer will not know whose work it is, and the author will not know who reviewed her/his work.

The publication process means that it can take some time before a book is published. As you are aware, also, books are available at a cost which can range to prohibitive prices and this, along with the type of topic and language level used, can limit who can access them. So, the readers of scholarly books can be limited.

As a researcher you will find that scholarly books contain in-depth detail on various topics in technical communication. For new researchers, the context and details are invaluable. An example is *Translation and Localization: A Guide for Technical and Professional Communicators* edited by Bruce Maylath and Kirk St. Amant. This edited collection book allows students to learn tips about writing documents to be translated into other languages, about translation software, errors to avoid, and case studies of translation and localization in global contexts. For the seasoned researcher the specialized focus on topics is indispensable. An example of the edited collection by Kelli Cargile Cook and Keith Grant-Davie, *Online Education: Global Questions, Local Answers* and *Online Education 2.0: Evolving, Adapting,*

and *Reinventing Technical Communication Online Learning* allowed researchers to understand how to apply online learning in the classroom, learn about policies universities implemented for their online programs, and read about practical cases. Their second volume built on these ideas as online technology and strategies shifted and improved.

The details and variety of topics that are covered in scholarly books makes this resource invaluable to technical communication research. Students tasked with researching technical communication topics that requires they be knowledgeable of the subject or an aspect of the subject—for example, understanding what a thing is, the contextual background of that thing, its rhetorical value, and application in practical settings—would do well in using books to complete their research.

ACADEMIC JOURNALS

Another important scholarly resource in technical communication research is the academic journal. In every field of study there will be multiple academic journals associated with it. Some examples of journals in the field of technical communication include: *Journal of Technical Writing and Communication* (JTWC), *Programmatic Perspectives*, and *Technical Communication Quarterly* (TCQ). Academic journals (journals for short) are considered important resources for research. This is where researchers in your field share their work. They are often associated with an academic organization or institution and a publication company. JTWC is a member of Committee on Publication Ethics (COPE), it is associated with Iowa State University, and is published by Sage publishers. Programmatic Perspectives is the journal of Council for Programs in Technical and Scientific Communication (CPTSC) and the journal is published all online, thereby requiring no formal publisher. TCQ is a journal of the Association of Teachers of Technical Writing (ATTW) and is associated with Taylor and Francis publishers.

Similar to books, journals have a review and publication process, which, if you are taking notes, means there is a rigorous approach to publishing the work. As a result, it can sometimes take years before it can be published. In general, this process works as follows:

1. **The editor:** Usually a researcher in the field who is a member of the organization the journal is affiliated with and is in close contact with the publisher. The editor usually does an initial review of a manuscript to determine if the research is effective (per standards in the field) and determines if the manuscript should move to the next stage of review or be rejected (not considered for further review for publication).

2. **The anonymous peer reviewers:** Usually members of the research field who are experts in the topic covered in a manuscript and who volunteer to review manuscripts for the journal. Typically, a writer's manuscript would be sent to two or three anonymous reviewers to obtain their expert opinion on the research presented in the manuscript. This means that the reviewer will not know whose work they are giving feedback on and the writer will not know who gives feedback. If these reviewers find the manuscript has merit and the research is effective, they recommend its publication in the journal. Accepted manuscripts then move on to the next stages of the publication process.
3. **The copyeditor:** Once the manuscripts have been formally accepted to be published, the book editor has a copyeditor edit the article for spelling, grammar, punctuation, and sentence style.
4. **The style reviewer:** Once the document has been readied to be published, a reviewer reads and revises the document so that it fits the publisher's style guide.

The journals would have a standard editor who publishes the journal either twice a year or quarterly (four times a year). These editions are known by seasons: winter, spring, summer, fall editions. For manuscripts, editors send a notice or a call for papers to academic researchers in their field of study to share research on current topics. These manuscripts are then forwarded to anonymous reviewers. The anonymous reviewers read and provide feedback to the book editors to reduce the chance of bias (whether for or against the writer), the editor then forwards feedback to the writer. Quite often the writers are asked to revise and resubmit and then their work will be resubmitted for review. The journal publication process includes a few more iterations than a book.

In addition to the rigor of publication, journals usually require subscription, and either the printed copy is mailed to you, or you get electronic access to the journal articles using login information. The limited access helps determine the audience of journals: whether researchers and/or members of a specific discipline. If you are a member of the organization to which the journal belongs, you pay a fee (dues) covering the cost of access. Non-members are able to pay for subscription to the journal as well. Some "open-access" journals can be shared with the general public for a small fee or free of charge.

As students, the college pays for subscription to many journals, which are accessible using your college login information through your library. Remember, if a journal specific to your field is not available through your

library, you can request that the library buys subscription to the journal or you can request an inter-library loan (ILL) to get access to specific articles through libraries that have subscriptions to the journals.

Journals are an invaluable resource to technical communication researchers because they provide focused and in-depth information on a topic. A journal article provides extensive information on past research completed (review of literature), description of the researcher's methods, discussion, and future research ideas on the topic. Your professors often may ask that you use scholarly sources like journal articles in your research papers. This is helpful given that non-scholarly sources sometimes give generalized information that is best supported with the research provided in journal articles. From journal articles, you get the context, the research methods, and findings directly from the researcher. For this reason, journal articles are best used when you need to inform yourself on a topic and when you need to support your research with information from a credible source.

CONFERENCE PROCEEDINGS PAPERS

We have spoken a little about technical communication organizations (CPTSC, ATTW). Now, take for example, CPTSC, a technical communication organization that produces the journal, *Programmatic Perspectives*. CPTSC also hosts annual conferences. These conferences list topics as foci of discussion, and academic researchers are asked to add to that discussion by sharing their experiences, on-going research, completed research, and/or research findings. These conference discussions have a format: a moderator introduces the topic and presenter(s), an individual or panel of speakers present, and their presentations are followed by a question and answer (Q&A) session. While the conference discussions are carried out orally, conference proceedings are a written, more formal version of the presentations, often adopted based on feedback from the Q&A session.

Conference proceedings can be published by the organization that coordinated the conference either via its affiliated journal (CPTSC would publish their annual conference proceedings in their journal, *Programmatic Perspectives*) or via a book series or special serial edition. Conference proceedings share similar publication process as edited books: there is an editor affiliated with the publishing company and generally also a copyeditor and style reviewer. Another similarity is that the editor may review or have anonymous reviewers give feedback on manuscripts before publishing. What makes conference proceedings different from journal articles and edited books is the contents of the proceedings are written versions of

the presentations given at a particular conference. (Participation in most journal and edited book projects tends to be open to any author to submit a manuscript for publication consideration with them.)

Proceedings are also usually accessed in print or electronic formats with a subscription. Generally, members of the organization that coordinated the conference receive access to proceedings as part of their membership in the organization. Individuals that are not members usually have to purchase a subscription to access proceedings content (often called “papers”) or buy individual papers published in a proceedings. The limited access to conference proceedings can help us determine the audience of these documents: researchers and members of the specific field of discipline. Conference proceedings papers are another helpful resource you can use for your research.

Conference proceedings papers offer focused research on a specific topic, the more recent ones usually feature current topics, making them another invaluable resource in technical communication research. Students tasked with researching technical communication topics that require understanding the topic extensively can use papers where researchers discuss their study and clarify ideas based on feedback—for example, the recent shift in how people communicate in a pandemic is the focus of many research, proceedings papers are spaces that researchers can give their most up-to-date findings, information coming directly from the researcher, rather than from a tertiary or non-scholarly source that summarizes the ideas.

PERIODICALS

Periodicals refer to multivolume, serial edits. This is simply documents published daily, weekly, or monthly to a specific publication. These can be newspapers or magazines. These sources are considered reputable because their standards of research depend on the reputation of the publishers. Articles are not subject to anonymous peer review; rather, the expertise of the author and (often) a review by the publication’s editor are used to establish the quality of the research presented in articles. In technical communication, trade journals or trade magazines are periodicals and include publications such as *Intercom* magazine (published by the U.S.-based professional organization the Society for Technical Communication) and *tcWorld* (published by the German-based professional organization *tekomp*).

Periodicals are numbered: volume is the number of years it has been published, and issue is the number of times it was published that year. Let us look at *Intercom*, the magazine published by the Society for Technical

Communication (STC), they use the volume and issue number. The first year it was published would be the first volume, and the issue refers to how many times it was published in that year. So the first issue of the magazine would be numbered 1. Consider then that the most current *Intercom* magazine (as of the writing of this chapter) is volume 67, issue 3. This means *Intercom* has been in publication sixty-seven years and published three issues for the year.

Periodicals have a similar publication process as books—they have an editor, copyeditor, and a style reviewer. And even though the periodical can only be accessed by having a subscription to the magazine or the organization to which it is affiliated, the audience is usually broader. For example, *Intercom* is meant for academic researchers and technical communicators who work in the industry (practitioners): both are authors and consumers of magazine articles as well.

Since the audience can be both researchers and practitioners, the articles share content that includes concepts applied to real world matters that makes it relevant for this broader audience. Consider, for example, the title of the most recent *Intercom* magazine: “To Boldly Go Where (Almost) No Technical Communicator Has Gone Before,” where the author makes the connection between the function of technical communicators to pulp fiction writers. The information in its language and style is relevant to this broader audience.

As new researchers, you may find the language and style of trade magazines more accessible. These are great resources to begin your research. You should note, however, that unlike journals, due to the quick turnover to publish articles, there is no peer-review process to ensure accuracy of content in magazine articles. As researchers in higher education, a good practice is to cross check the content with other sources that have a more rigorous publication process.

Periodicals are a good source for researchers to start. Trade magazines present focused information on topics and they are usually based on personal experience or interviews with primary informants through interviews. Freshman researchers will find the language and applications relatable, and they act as bridges to understand the more difficult concepts and theories that academic researchers reference in scholarly books, journals, and conference proceedings papers where they share data that is collected in a systematic way. For this reason, periodicals like trade magazines are often a good resource when you wish to research topics to get the writer’s perspective, learn about researchers’ experiences, or see applications of academic research concepts in industry.

WEBSITES/ONLINE DOCUMENTS

Of all the sources listed for research purposes, you may be most familiar with websites and other online documents. These sources are published by an organization or company and are accessible, either free of cost (advertisements usually pop-up or line the margins of the documents) or for a small subscription fee. Similar to periodicals, researchers consider websites and other online documents reputable sources, because their standards of research depend on the reputation of the publishers. Researchers often use websites and online documents to get background information to start their research: information about an individual, an organization, statistics, dates or events. A quick web search directly from the website of a person, place or thing you are investigating can be helpful. So, for example, if you are researching your college, you can go directly to its website and find information about when the college was established and names of various individuals in administrative positions.

It is important to know that the publication process of websites and online documents are not as rigorous as the other sources noted earlier and, depending on the author of the site, in-house processes can vary significantly. The various government departments, for example, will only publish information on their websites that has been confirmed accurate by regulatory bodies. Universities and other educational entities will have some type of vetting of materials published on their websites: these can be for style, legal parameters, and accuracy. Similarly, some business organizations also vet the information published on their websites for style, legal parameters, and accuracy. As a result, the credibility and reliability of these online sources is often a matter of the credibility and reputation of the organization that publishes them. For this reason, you should always identify and review the source (e.g., organization) that published online information to determine how credible, accurate, and objective their information might be.

The information on websites and other online documents are meant to be easily accessible information to the general public. As researchers, a good practice to assess the reliability and accuracy of content online is to look for an author, copyright date and/or date published, and information of who to contact about the content of the website. If one or more aspects of this information is missing, it is important to triangulate your information, this means you should cross-check what you found with information from other sources or contact the entity directly.

Websites and other online documents offer information on a wide range of topics, and they are easily accessible. For this reason, online documents

are a good source to start your research, you can familiarize yourself with a topic and, if they cite sources, you can find more credible sources to look for more information. It is always an important strategy, however, to cross-reference the information gleaned from online sources with more credible sources like journals or books.

BLOGS, WIKIS, SOCIAL MEDIA, AND OTHER SELF-PUBLISHED ONLINE DOCUMENTS

Online publications can vary from self-published blogs by individuals providing music critiques and personal journaling to academic researchers and industry specialists writing on topics that vary from teaching strategies for technical communication online courses to initial findings about ongoing research. You could find specialized information by technical communication specialists on wiki pages describing theoretical concepts, and YouTube videos sharing complex “how-to’s”. The audience is generalists, varying from content specialists looking for quick indexical information to freshman researchers needing content.

As you may have noted with books, journals, and conference proceedings, due to the restricting publication process and subscription or other costs, both the writers and audience can be limited. Self-publishing your content online can cut those restrictions and open access to a more general audience to your content. Therefore, platforms like Wikis, YouTube, and social media (in general) are popular with audiences and authors who want to get their content out quickly and unrestrictedly.

Assessing these sources can be tricky. In some cases, the authors are well documented researchers using platforms other than the ones academics or researchers use to publish important information. For example, the astrophysicist Neil de Grasse Tyson often uses X (formerly known as Twitter) to share scientific information. An important strategy researchers use is to identify the authors of the information to determine the source’s credibility and then triangulating that information with credible sources (sources written by content specialists) to determine accuracy. Again, if information is missing about the author, publisher or publication date, the source may be unreliable or inaccurate. An important duty of the researcher is to avoid using unreliable information in your research.

Blogs, wikis, social media, and other self-published online documents are another good source researchers can use. They can be used as a good database to judge audience reactions to certain topics or events or to directly contact researchers. Researchers even use these sites to understand communication strategies and the rates at how messages disperse to local and

global communities. For these reasons, blogs, wikis, and other self-published online documents are a good source to familiarize yourself with a topic. It is important, however, to cross-reference the information with more credible sources like journals or books.

STANDARDS SOURCES SHOULD MEET

We have looked at the different types of sources you may come across when initiating your research. You can use this information to focus your research or to steer away from certain sources. Choosing reliable sources for your research is important because your readers depend on you for accurate information, which raises your ethos—your credibility as a writer and researcher.

At this point you may have a research topic, some keywords or phrases, and, possibly, a research question to start your research. Once you have identified sufficient sources for your research, there are a few things to keep in mind as you hone into these sources. Up to now, you may have done a great job identifying what seems like reliable sources. But often your technical communication research has to be kept within certain parameters. And you won't be able to determine if the sources so far are within the parameters unless you understand what those guidelines/parameters are. Here is a list to keep in mind. Are the sources you have chosen—

- Accurate
- Timely
- Relevant
- Focused
- Rigorously documented?

You will notice that assessing a source is a process. First, you selected various sources, then evaluated the types of sources for reliability, and, next, you will determine whether the source meets other academic guidelines.

ACCURACY

As a new researcher, you will have to determine whether the information of a source is correct. You have an important tool in your toolkit to help determine accuracy—triangulating information. We noted triangulation earlier in determining whether you want to use a source. It includes looking at other sources to see if the information one source shares is similar to or contradicts another source. As you review the various sources chosen, start making annotations; this will help you remember what is being said from one source to the next.

If you recall, the publication process for some sources does not include a review for content accuracy. It is then up to the author to make sure they report accurate information. And even with sources that include the “anonymous-review” process in some cases, articles have been found with inaccurate information. Take for instance, the researcher Edward T. Hall who developed the concept of intercultural communication: high and low context cultures and listed descriptions about what makes one culture high context and others low. His research methods used to gather evidence were later discredited (Kittler et al.), and, so, some of his ideas were found inaccurate. Two ways of overcoming including inaccurate research are to:

1. Review what other researchers are saying about someone’s work.
2. Use timely sources.

This last point is discussed next and is the second parameter to consider as you research.

TIMELY

Determining whether the information in a source is timely, so, not outdated, is a relatively easy process. It involves identifying the publication date of the source. You may be familiar with the different types of paper formatting: MLA, APA, and the like. Whichever style of formatting is required or preferred, one piece of information you will be asked to submit is the publication date. As noted earlier in assessing websites and other web-based documents, a date is an important piece of information to determine the reliability of a source.

In books, a page is dedicated to publication information: there you will find publisher information, publication date, cataloguing information, and ISBN numbers. Sometimes the month, date, and year are provided, other times only the year. For journals, conference proceeding papers, and periodicals, the volume, issue number, and date are provided at the top of the articles or on the introductions/cover pages of the sources themselves. For some web-documents, the date of publication can be found at the top of the document or at the close. If it is not evident in these areas, students can use the copyright date usually found in the footer of the document. Social media sources usually carry a time and date stamp.

Your research assignment would usually limit you to a specific time frame that your sources should be published. Many give a ten-year time-frame, so research completed in 2021 should use sources published by or after 2011. This aspect is helpful because, as noted earlier, newer research will help you determine the accuracy of past research. There is an

exception though. Foundational research in a particular field can be outside of the ten-year limitation. Foundational works are those works in a field of research flagged for their extraordinary or original concept/contribution regardless of time, such as, the works of Michel Foucault. While he died in 1984 and his works were published before or during the 1980s, Foucault's writings today retain the status of foundational works and are cited extensively to date.

RELEVANT

Sources you have chosen may have titles that seem closely tied to your research, but the information of the source may not pertain to your subject matter and so is not relevant to your research. For example, while conducting research on mobile learning, I kept finding works about multimedia technology. At first glance, the information seemed pertinent, but upon further investigation the sources were not relevant to my research. Very often similar-sounding ideas may emerge in your search. A quick read of the source's abstract will give you an idea whether the document's topic truly informs your research. Be sure to assess titles of your sources as well as abstracts to help determine whether a source is actually relevant.

FOCUSED

Once you have determined the source is relevant, technical communication research requires that your sources approach the topic in a focused fashion rather than in a superficial or generalized manner. Generalized information has its purpose, and often to initiate your research it is good to find general information to acquaint you with the topic. As the writing process advances, research that deeply engages with the *who*, *what*, *where*, *how*, and *why* of the subject will be indispensable giving credence to the importance of sources providing detailed, focused information. Sometimes this type of information may require more than one source. As you delve into your research, thereafter, it is important to assess your source for how focused it is in investigating and challenging the topic.

RIGOROUSLY DOCUMENTED

As mentioned earlier, sometimes you need more than one source to complete the research. Previously accessed and assessed sources can direct you to other related sources. Sources you find must not only be focused on its content, but also the data should be well researched, so rigorously documented. This not only means the source gives credit to other researchers,

but it helps readers find other sources and shows evidence that the information is well researched. As researchers, you appreciate the importance of learning how to cite your information, and how such citing helps guide other researchers in the right direction. One way of assessing a source for being rigorously documented, then, is to check the citation page. Look at the titles of the sources to match their relevance to the topic of the source you are currently evaluating.

RHETORICAL READING IN ACTION

Let us connect the standards of reliable sources to reading rhetorically. As you begin to research, you will establish keywords and phrases. An example of these is in the memo assignment given earlier: “memos,” “writing in professional contexts,” “memo samples,” and “types of memos.” As your sources populate after inserting these keywords and/or phrases, you can quickly narrow your search limit to a ten-year timeframe within your library’s interface. Once your list populates, before reading the sources, you can scan the abstracts to decide whether the sources are relevant to your research.

If done purposefully, you will have significantly narrowed down the number of sources for the research. Here, rhetorical reading can be utilized to appraise your sources. Identify the author; if no biography is in the source itself, do a quick web search. Find the author’s background: does the author work in industry, have experience in technical communication? How is the writer’s background relevant to the topic? You might consider this next step odd, but skim through the references list. Look at the number of sources and the title of the sources. Are the titles connected to the topic; do you see any sources that may be helpful to you? You may add additional sources to review. The reference list also helps you determine the rigor of the source’s research.

Once you have determined the source to be relevant and reliable, focus on the argument the writer makes, what does the author use to make their argument (stories, statistics?), and how does the author connect to the reader? The answer to these questions helps you understand the information provided and to whom it is directed. You will not be able to remember all this information, so an important aspect of your research is annotating sources. The annotated bibliography is a handy tool to use, this is where you keep track of the sources and doubles as a way to cross-reference your sources—a final way to determine your sources’ accuracy.

Assessing sources, as you may have noticed, is an important toolkit to develop your research practice. Again, the process altogether may seem

painstaking, but using rhetorical reading strategies, understanding your sources, and being scrupulous in identifying and choosing sources puts you ahead and it comes easier with practice. Fortunately, you may have already mastered some of these skills, and the information here builds on these and facilitates your meeting the research rigor that college demands.

And there, you are on your way to becoming an ethical researcher.

WORKS CITED

- Kittler, Markus G., et al. “Special Review Article: Beyond Culture or Beyond Control? Reviewing The Use of Hall’s High-/Low-Context Concept.” *International Journal of Cross Cultural Management*, vol. 11, no. 1, Apr. 2011, p. 63–82.
- Miller-Cochran, Susan K., and Rochelle L. Rodrigo. *The Wadsworth Guide to Research*. Cengage Learning, 2014.
- Society for Technical Communication. “Intercom: The Magazine of STC.” *Society for Technical Communication*, May/June 2020, <https://www.stc.org/intercom/2020/08/minimalism-revisited-copy/>.

TEACHING RESOURCES

OVERVIEW AND TEACHING STRATEGIES

Freshman students are often first introduced to both research and to technical communication as a field of study in their freshman courses. This chapter offers some tips to help them understand an important aspect of research: assessing sources they will encounter. Even students who have research background and technical communication experience will probably be new to the vast data resources available at higher education institutions. Without knowledge of how to use these resources, students may fall back on what they know which will not meet the requirements of research assignments for college courses or technical communication research assignments. Understanding how to find and assess sources, therefore, is pertinent for research.

Additionally, technical communication courses often provide the most relevant and practical ways that students get to practice the application of research concepts. For the most part, technical communication courses offer real world scenarios that students often find engaging and rewarding. The assignments offered in technical communication courses, therefore, easily lend to identifying concepts from the chapter and using these ideas allows for research practice that freshman students can build on for the rest of their academic careers.

DISCUSSION QUESTIONS

To help students apply the concepts from the reading, consider having them discuss the following questions:

1. Which of the listed types of sources are you most and least familiar with? Share why you feel you may not be familiar with the source or else how you became acquainted with it.
2. Which of the five standards (accurate, timely, relevant, focused, rigorously documented) do you feel would be the hardest to determine from a source? Why?
3. List at least three ways that rhetorical reading will help you with assessing sources for technical communication research.
4. Consider a research paper you have pending. Explain the research process you plan on using to make sure you have reliable and credible sources.