¹¹ Creating, Using and Sharing Information in Research Communities

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OVERVIEW

This chapter extends John Swales' theory of discourse communities into the sphere of information literacy, as it is conceptualized in the ACRL *Framework for Information Literacy for Higher Education.** We propose the concept of research communities, where discourse communities with the common goal of research use, share, and create information in particular ways. After opening with a personal narrative of how one of us found and joined a research community related to podcasting, the chapter identifies and offers examples of the features of research communities. Finally, the chapter concludes by showing how learning to analyze research communities can help students become more effective information users and creators.

Research Communities

If you wanted to start a podcast, but didn't know how, where would you start? Would you listen to every podcast you could find, or focus on podcasts in a specific area? Or maybe talk with people who have made podcasts before? What information would you need, and where would you go to find that information? You'd probably want to know what kinds of equipment you need to record and edit a podcast, and how you post the episodes for other people to hear. And the less tangible things would probably come to mind next, like finding out how people choose a topic or what

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the best length for a podcast is. You could probably find the equipment you need pretty easily on Amazon, but where would you go to get advice and insight on everything else?

One of the authors of this chapter, Cassie, is an avid podcast listener, and a few years ago, the inevitable happened—she said to a friend, "We should start a podcast!" She found the information she needed to create her podcast by seeking out what we call a research community. If you find a community of people who are actively engaged in creating and sharing information about a specific topic or field, you can learn about that topic, find mentors, and become a respected contributing part of the community yourself!

And what if you don't want to start a podcast, but want to start a research paper, or a YouTube channel? The same technique applies! You can learn more about how to create any type of text or media, in any genre, by looking for a research community and asking yourself some questions about how that community functions. There are lots of ways to think about how to do research, and chances are you will, at some point in your academic career, hear that you should use peer-reviewed scholarly sources in your academic essays and not random information that you find on the web. However, if you wanted to learn about how to start a podcast, Tik-Tok, or YouTube channel, going to peer-reviewed scholarly sources probably would not be very helpful. YouTubers tend to share information about how to make videos on YouTube itself, and Google shares guidelines and information about starting channels on their webpages.

The reason why you would look for information for a college essay in a different place than information about starting a YouTube channel is that the members of those communities use, share, and create information in different ways. You may have heard the term "Discourse Communities"—these are certain groups of people who compose texts in conversation with each other, with each other. Discourse communities also have particular features, and it may be helpful to think of them as their own information communities.

In this particular chapter we are talking about *research communities*, which might be thought of as a subset of discourse communities, as they are defined by a scholar named John Swales. Discourse communities, according to Swales (24-27), have six key features that we'll summarize as follows:

- they generally agree upon and publicly share a set of goals
- they have methods for communicating with each other

- they use these methods of communication in order to share information and offer commentary with/to each other
- they use at least one particular genre to achieve their shared goals
- they have a specialized vocabulary
- they have experts in the community who can help people new to the community to learn the ropes and gain expertise

Dan Melzer, in his chapter "Understanding Discourse Communities," explains that, for college students, "understanding what a discourse community is and the ways that genres perform social actions in discourse communities can help you better understand where your college teachers are coming from in their writing assignments and also help you understand why there are different writing expectations and genres for different classes in different fields" (110). The same is true for groups that perform research in conversation with each other. Research communities have the same features of discourse communities, but with the common goal of engaging in research, or the purposeful investigation and creation of information. Just as discourse communities help us to be aware of the writing choices made for specific purposes to help writers achieve their goal in particular contexts, understanding research communities help us develop information literacy. Information literacy is "the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning" (ACRL Framework). Breaking that definition down, it means that if you have strong information skills you are able to find and use information well. And it goes beyond just finding information-information literacy is also about seeing how what is ethical or not ethical in research might change in different contexts and understanding how information can best be used to achieve your purposes and shared in a way that helps others see its worth and credibility. And finally, information literacy is about actively, ethically contributing your new information in communities of learning.

By bringing together discourse communities and information literacy, we can give an account of what happens when groups of people engage in research. This helps us understand how to participate in researching, using sources, and creating information in ways that are consistent with the rhetorical purposes of a particular discourse community. Looking at the features of research communities will make it easier to analyze them and to join them yourself. If you know how communities use, create, and share research, then you can learn how to be a member of that community yourself.

Features of Research Communities

Research communities create, share, and use information in ways that are particular to that community. A research community will have the following features:

- they create and share information in cycles and specific locations
- they create and share information in a conversational way
- they use particular genres, formats, and media for creating and sharing information
- they use specific terminologies
- they have expertise levels that are particular to their communities and methodologies
- they have ethical norms for the creation and sharing of information¹

Considering how a research community works in each of these areas will make it easier to see how to join that community. Let us consider each of these features in more detail.

| Research Community Features | | |
|--|--|--|
| Discourse Communities | Research Communities | |
| Have a generally agreed upon and publicly shared set of goals | Create and share information in cycles and specific locations | |
| Have methods for communicating with each other | Create and share information in conver- sational ways | |
| Use these methods of communica- tion in order to share information and offer commentary | Use particular genres, formats, and media for creating and sharing information | |
| Use at least one particular genre | Use a specific lexis | |
| Have a specialized vocabulary | Have expertise levels that are particular to their communities and methodologies | |
| Have experts who can help people new to the community learn the ropes and gain expertise | Have ethical norms for the creation and sharing of information | |

Table 1. Discourse Communities and Research Communities²

Cycles and Locations

The availability of information on the open web makes it seem like you can find anything online. However, any information you find on the web

has a home location in an information storage system. Online content has to be stored and made accessible from somewhere, and there is a great deal of information that is not available on the web. Information in research communities may be housed in libraries, archives, databases, intranets, or secure servers. Information in research communities is often housed in particular places. For example, a group of researchers working in a lab will house experiment information in files that lab mates might share, but that the outside public won't be able to access. Once they are ready to share the results of the experiment more broadly, they will write a scholarly article that will be published and made available to readers who subscribe to the journal. If you wanted to get access to this article, you would have to go through your academic library to get access to the article, since libraries pay the subscription fees for their users.

Note that in the example above, the information for the narrow and then broader research communities lived in specific places. You would not be able to find lab reports or scholarly journals on Wikipedia, for example. In order to find information for a given research community, you have to go to the specific places and platforms where those communities share their information.

Notice, too, how in the above example the information the research community produced went through a cycle of raw data and then a publication. Information for research communities may move through cycles. Taking up the example of the lab data above, after the article was published, the news might write about the experiment if the results were groundbreaking. Eventually that information might be included in books or reference materials, like encyclopedias. With each part of the cycle, the information will be housed in a new place, so it is helpful to know where a research community shares its information at a given step in the information cycle.

CONVERSATIONAL INFORMATION

The ACRL *Framework* considers "scholarship as conversation," and Swales notes that discourse communities have "participatory mechanisms" (26). What this means in practices is that information sharing is one of the primary goals of research communities, and as such it is conversational in nature. Members of research communities communicate with one another. Scholarly research communities have conversations through publications and conference presentations. Research community members in a business may share conversational information through memos, reports, and business presentations. These pieces of information are intended to be read or experienced by an audience that will respond in some way, such as publishing subsequent articles in response or sending follow-up memos.

These conversations are not limited to a short moment in time. One scientist might write an article that responds to an article written ten years prior. The speed of the response often depends on the nature of the research and the method of communication. But both authors can still be considered to be part of the same research community even though a great deal of time may pass during the conversation.

The conversational nature of information in research communities means that even as a new member joining a community you have a voice to contribute. When you formulate responses to authors in your community, whether by citing them, evaluating them, or directly responding, you are entering the conversation. Researching is an active, not a passive, effort. It may be helpful to you to think of yourself as having a discussion with other people pursuing a similar goal when you create information and texts in a research community.

Genres, Formats, and Media

Research communities use and create information that comes in particular genres. Sometimes we think of genres as works sharing common goals and internal features, like motifs. In artistic literary works, you may associate the term genre with horror, comedy, tragedy, or romance. John Swales defines genre as "a class of communicative events, the members of which share some set of communicative purposes...[and] patterns of similarity in terms of structure, style, content and intended audience" (58). In her chapter, "Navigating Genres," Kerry Dirk proposes thinking of genres practically as a writer. Dirk says that we can start to figure out how to compose a type of text that is new to us by looking for other examples of the genresimilar types of texts written in response to similar situations (250). That way, we can see what strategies other writers have used to achieve a goal that we share. Genre, in a research community, applies to the type of information the research community members post. For example, in scholarly research communities members might create lab reports, scholarly articles, and conference presentations.

Closely tied to the idea of genre is format, and sometimes the words are used interchangeably. Format refers to the arrangement of the information. For example, a school paper will have a heading, a title, the body of the paper, and a bibliography. An email, on the other hand, has an opening salutation, a body, and a closing salutation. The way the text is arranged in each is a different format. Items within the same genre often contain similar formats. Members of research communities use common formats in their works.

Finally, information in research communities is shared in a common medium. Medium refers to material of the information. For example, a book can exist in either a digital or a paper medium. A movie can be in a streaming digital file, on a DVD or Blu-Ray disk, or even a VHS tape. Many types of information are now in digital media available online, and so the distinction of medium is less notable than it used to be. Most research communities, even if they produce information in physical media such as paper books or journals, now also produce the same items in a digital medium as well.

Specific Terminologies

Research communities use specific terminologies because groups of people doing research use precise terms to refer to things in ways that other groups of people would find meaningless or for which they would use other terms. For example, in the gaming community people might use the term "spawn" to talk about a character regenerating after it dies. Outside of the gaming community, "spawn" refers to the offspring of amphibians or fish. Likewise, in the medical community doctors, nurses, and researchers use the term "otitis media," where members of the general population would say "middle ear infection." Medical professions use specific words for medical conditions that the general public does not use. Understanding the lexis used research communities is necessary not only for understanding and participating in the community, but for finding information as well. If you went to a library database and searched for just "middle ear infection" and not "otitis media" as well, you would miss finding many scholarly articles, because "otitis media" is a term that medical researchers writing articles use in scholarly journals. Since medical research communities use scientific language in much of their writing, it is necessary to use those terms as well in order to find and use information about those topics.

Expertise

Research communities have experts who lead the community in providing information that is considered reliable by that community. In order to provide this type of mentorship, there need to be a sufficient number of experts to balance less experienced members in the group. What counts as expertise is determined by the members of the research community, and those standards can vary from one group to the next (ACRL *Frame*- *work*). For some research communities, lived experiences are necessary for expertise. For other groups, it may be some type of education or training. In yet other groups public successes may be the criteria for expertise. It is the members of the research community that decide what counts. For example, in the case of a YouTube research community, someone who has not created a successful YouTube channel might not be considered an expert, while someone who has a large number of subscribers might be. With doctors, expertise comes through a combination of education (a medical degree, and in some cases a Ph.D.) and hands-on training (a residency).

As you participate in a research community, pay attention to what criteria community members use to evaluate expertise. Determining those factors will help you figure which voices stand out as being reliable sources of information. Figuring out those criteria, when it is having a certain type of training, or using a certain type of research method, or demonstrating previous experience will help you as you develop as a member of that community.

ETHICAL NORMS

Groups of people doing research have ethical codes about how information can be used and shared in that community. For example, in medical research groups patient information must not be publicly released, both by law and by moral code. In the YouTube community, creators are careful to respect intellectual property and copyright laws, so copying someone else's video and uploading it as your own is considered unethical. It is also a copyright violation. In the academic world, plagiarism, or using someone's words or ideas without giving them credit, is a serious offense.

The ethical norms of research communities are influenced by many factors, including laws, professional standards, institutional guidelines, and broad cultural understandings. Additionally local culture and context are equally as important in determining what is considered to be acceptable. Because violating ethical norms can have serious consequences and because they can vary substantially from group to group, it is important to understand what the specific ethical norms and expectations are for any research group in which you wish to participate.

Anyone looking to join a research community can look for the laws, best practices, and guidelines that govern the ethical use of information for that community. For example, at research universities in the United States, research related to human subjects requires review by an Institutional Review Board to ensure that the research is being conducted ethically. Information about what types of research require review is posted online through university research offices and in conduct handbooks. When joining any research community, it is important to learn about the institutional, professional, and governmental codes of ethics that you need to follow.

How to Analyze and Join a Research Community

Let's play out what these features actually mean, and how you can use your understanding of research communities to find and share knowledge. We'll use an anecdote about joining a new research community from Cassie (one of the co-authors of this chapter) to work through the process of identifying the features of a specific research community.

> Cassie: A couple of years ago, a friend and I wanted to start our own podcast. As we started planning, I realized there is so much more that goes into building a podcast. It involves a lot of research, about both the topics discussed in the podcast itself and the art of creating a successful podcast. Sometimes I start at Wikipedia to get an overview of the topic, then follow the links at the bottom of the page to more stable and reliable sources³. But researching a more complex concept is a bit trickier—what I was looking for was not just information, but a community of information.

> When beginning a podcast, you need to consider who your audience will be, and where or how they will listen. You need to have a good title and a quick and catchy tagline. You need to decide how long to make your episodes, if you want to have seasons, and so much more. And the research! I wanted to talk about animals, and I knew that I wanted to use reliable information and show that their listeners could trust my cohost and me. But what research sources are appropriate to use in a podcast made for all ages? And how the heck do you cite research in a podcast? You definitely can't use an MLA in-text citation and Works Cited page!

> I had educated guesses for a lot of this, but that wasn't going to cut it. I needed to hear from the experts. I needed to find out where podcasters share personal experiences, best practices, and tips and strategies. I needed to see where they communicate with each other. I also needed to learn where they do their research on podcasting—what sources exist and are considered reliable and trustworthy for sharing expert knowledge about how to podcast.

> What it came down to was that my cohost and I were going to have to learn how to create media in a genre that was new to us,

and to do so, we would need to find the communities of knowledge about this genre. So before we even recorded our first episode, I started searching for research communities focused on podcasting. I found several great groups on Facebook and communities on Twitter, and after lurking for a bit to see how people talked to each other and what sorts of information and feedback they shared, I started engaging in two groups: *Underdog Podcasts* and the *Lady Pod Squad*. Both were extremely open to offering kind advice to newbies. The members shared advice, asked questions, linked to interesting resources, and carried on constructive discussions. The posters weren't just trying to promote their own podcasts and get more listeners from the group; they were making connections, building collaborations, and working together so that everyone could create better podcasts.

Participating in these locations of podcast research communities helped me and my cohost take that final leap into recording. Two years later, I am an active member of both of these groups, still learning from the other members, but helping to contribute to that shared goal of creating excellent podcasts. What I found in these groups were communities where people share information and strategies for researching - places that, like the discourse communities, help people to engage in discussing, learning, and building knowledge about a field or a topic.

Thinking about research communities and the features of research communities is useful for when you need to conduct research in a field that is new to you or contribute to the creation and exchange of information in a field in ways you haven't previously. Asking yourself some questions and looking to see where the answers might be found will help you find your footing and feel confident about entering into new research communities. In order to engage in a research community, you can analyze the features of the community as Cassie does in this example, and teach yourself how members of the community create and share information in specific locations, how they use genres, media and formats, who the experts in the community are and how to recognize their credibility, what terminology they use, and what their ethical norms are for creating, sharing and using information

Take a look at this table to see how Cassie can identify and articulate the features of the podcast research community she joined. You can use this same table to analyze your own research community.

| Research Community Analysis Table | | |
|---|---|--|
| Research Community Questions | Podcasting Groups | |
| Does the community create and share information in cycles and specific locations? Where? | Yes, in Facebook groups, Twitter posts, and podcast episodes | |
| Does the community create and share information in a conversation- al way? How? | Yes, members converse on all the above sites, even across podcast episodes. They also use information that they create and share to revise their podcasting practices. | |
| What particular genres, formats, and media do the community mem- bers use? | Podcast episodes, social media posts, show notes, YouTube videos, FB or Insta- gram live | |
| Does the community use special- ized terminology? Like what? | Yes! Some terms are specific to the pod- casting community, but others are every- day words or phrases that have specific meanings in the podcasting community, like "guest" and "platform," for example. | |
| Are there experts in researching in the community? What qualifies as expertise? | Yes. Expertise is not defined by monetary success, but by experience and respect within the community and from listeners. | |
| Does the community have ethical norms for the creation and sharing of information? Like what? | Yes— giving credit to other podcasts you listened to for research, not using some- one else's media without permission, etc. | |

Table 2. Completed Research Community Analysis for Podcasting Groups.

CLOSING THOUGHTS

Entering a research community is not a fast process. It is one that takes time and participation. Members of research communities range from novice to expert, and people may move in and out of research communities over time. Don't be frustrated if you discover that the information in a research community is not immediately intelligible to you. Understanding the nuances of conversations, genres, and norms requires repeated engagement with information, texts, and platforms. Chances are you are already part of a research community but you may not have thought of your group in that way. You may have started because you had an interest that you wanted to pursue, and that interest developed into research. Research communities are dynamic, because not only are members taking in information, they are creating, sharing, and responding to it. When you join a research community, you become not only a user of information, but a creator, too. While you may have already done this in your personal life, you will also join a research community in your academic career. Early on, you might be a novice member, but as you progress through your education you will become more of an expert. It is exciting to consider that as you learn, you will also actively contribute to your community.

Notes

1. Research communities are an adaptation of Swales' work about discourse communities (24-27) that is integrated with the *Framework for Information Literacy for Higher Education*.

2. Discourse community text is adapted from Swales (24-27). Research community text is adapted from the *Framework for Information Literacy for Higher Education*.

3. Wikipedia can be a good point for beginning research projects, as James Purdy notes in "Wikipedia Is Good for You?!" (209). This is the familiar topic research journey that Randall McClure discussed in "Googlepedia: Turning Information Behaviors into Research Skills," and it serves many students very well when researching and writing a topic-focused research paper.

WORKS CITED

- Dirk, Kerry. "Navigating Genres." Writing Spaces: Readings on Writing, edited by Charles Lowe and Pavel Zemliansky, vol. 1, Parlor Press, 2010. https://www. writingspaces.org/essays/navigating-genres.
- Framework for Information Literacy for Higher Education. Association of College & Research Libraries, 2015. http://www.ala.org/acrl/standards/ilframework.
- McClure, Randall. "Googlepedia: Turning Information Behaviors into Research Skills." Writing Spaces: Readings on Writing, edited by Charles Lowe and Pavel Zemliansky, vol. 2, Parlor Press, 2011. https://www.writingspaces.org/ mcclure--googlepedia.
- Melzer, Dan. "Understanding Discourse Communities." Writing Spaces: Readings on Writing, edited by Dana Driscoll, Mary Stewart, and Matthew Vetter, vol. 3, Parlor Press, 2020, https://writingspaces.org/node/1714.
- Purdy, James P. "Wikipedia Is Good for You!?" Writing Spaces: Readings on Writing, edited by Charles Lowe and Pavel Zemliansky, vol. 1, Parlor Press, 2010. https://www.writingspaces.org/sites/default/files/purdy--wikipedia-isgood-for-you.pdf.
- Swales, John M. Genre Analysis: English in Academic and Research Settings. Cambridge UP, 1990.

Teacher Resources for Creating, Using and Sharing Information in Research Communities

This essay is intended to help students understand that research is a skill that encompasses practices from both composition and information literacy. Research is often taught as something extra that you do for some papers on top of writing. In many situations, students' in-class experiences with researching is encompassed in a "library day," where a librarian walks students through using the college library website to search databases and locate books. However, that type of learning does not reflect the broad array of information seeking, sharing, and creating practices that accompany the activities of many researchers. In this chapter, we seek to help students see research as an integral and ongoing part of the writing process, and as a social action, in and through which they are engaging with a community of researchers. We want students to understand that the heuristics for research shift depending on the communities with which they are engaging, and we want to equip them with skills for identifying and employing the best information use and practices agreed upon by their communities.

Teaching students about research communities will work best when they already have been introduced to the concept of discourse communities, and this approach can be used in any college level course, with appropriate context and assignments. We recommend that the chapter is taught with *Writing Spaces* chapters including Kerry Dirk's "Navigating Genres," Dan Melzer's "Understanding Discourse Communities," Randall McClure's "Googlepedia: Turning Information Behaviors into Research Skills" and James Purdy's "Wikipedia is Good For You!?"

Discussion Questions

- 1. The authors begin the chapter with an example of a research community. What is a research community that you participate in? How does it meet the following criteria:
 - Where is information in the community created and shared?
 - What questions and conversations are people in this community sharing?
 - What genres do researchers use when they create information? Are there multiple genres? Multiple formats or media?

- What are the particular terms that this community uses to refer to objects, events, or ideas?
- Who are the experts in the community? Why are they considered experts?
- What are the values and norms about research and information in the community?
- 2. Discourse Community or Research Community? In a small group, share examples of communities you participate in—one example could be your writing course! Review the criteria for discourse communities and the criteria for research communities in the chapter. Decide as a group which of the examples shared by group members are discourse communities and which are research communities.
- 3. Explore how a text might demonstrate the characteristics of a research community. With a small group, pick a peer-reviewed journal and skim the archives. What can you learn about the research community who shares, discusses, and responds to the research published in the journal?
- 4. Consider a profession that you are interested in pursuing. What sorts of research do people who work in this profession need to do on a daily basis? Weekly? Periodically? When do they use information? And where do they find and share information?

ACTIVITIES

Students can conduct research community analyses on a variety of different scales. For an in-class assignment, ask students to fill out the following analysis table.

| Research Community Analysis Table | | |
|---|--|--|
| Research Community Questions | | |
| Does the community create and share informa- tion in cycles and specific locations? Where? | | |
| Does the community create and share informa- tion in a conversational way? How? | | |

Table 3. Research Community Analysis Table

| Research Community Analysis Table | | |
|---|--|--|
| What particular genres, formats, and media do the community members use? | | |
| Does the community use specialized terminology? Like what? | | |
| Are there experts in researching in the communi- ty? What qualifies as expertise? | | |
| Does the community have ethical norms for the creation and sharing of information? Like what? | | |

Students might also have questions about how discourse communities and research communities differ. After asking students to explore the questions above individually or with a small group, pose this as a discussion question. You can open that question up to the class, asking them to use examples from the reading and also from their own experiences in order to see how discourse and research communities intersect and where they diverge.

Students can also explore research communities as a longer stand-alone assignment wherein a final project might be a paper, video, or infographic demonstrating how a particular community meets the criteria for a research community. Alternatively, a research community analysis can be used as process-work for a larger assignment such as a literature review or for a more nuanced take on an annotated bibliography assignment.