The Danger of Filter Bubbles and Digital Isolation: Exploring Ethical Research Practices

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In this reprint article from GWRJ 10.1 (2019), Alyssa Herman uses Eli Pariser's concept of filter bubbles to understand (un)ethical information-seeking behaviors and research habits. Drawing on past experiences with academic research, Herman unpacks how we can consciously embrace ethical research and writing practices as responsible writing researchers.

"Your final research paper needs to be 10 pages in length, and I'd like you to cite six peer-reviewed scholarly articles," my professor explained.

"Um … what!? I don't know what that means, and I definitely don't know how to write a paper that long," I thought to myself. (Except the language I actually used was a little spicier.) My mind began racing, and the premature panic attack set in.

It was my first year of college, and I had just switched my major to English at the last minute without knowing what the degree really entailed. My academic advisor suggested that I take a literature course because it was one of the few English courses still open and available to me. I probably should have expected to read a lot and write long papers, but when my professor introduced the final research paper requirements, I felt unprepared and overwhelmed. I had never written a paper like that before, and the task was daunting.

First, I had to figure out what it meant to write a research paper in the English field and how I was going to negotiate this specific research paper

Writing studies researcher Dr. Elizabeth Wardle defines **mutt genres** as "Genres that share superficial conventions with other genres but have been taken out of their original context, resulting in obscured audiences and purposes" ("Mutt Genre," 2010).

Wardle writes about mutt genres that are essentially made-up assignments for school, including the five-paragraph essay and the research paper (Wardle, 2009).

as a writing researcher. According to the Illinois State University (ISU) Writing Program, part of being a **writing researcher** means using your skills and antecedent knowledge to help you successfully adapt to new writing situations ("Key Terms and Concepts"). **Antecedent knowledge** refers to our past knowledge (the things we consciously and unconsciously already know) and how our past knowledge affects our behaviors in new writing situations ("Key Terms and Concepts"). My antecedent knowledge of writing papers was entirely based on my high school experience where everything I wrote was a variation of the five-paragraph essay and limited to four pages at most. This **mutt genre** I was taught in high school did not prepare me for academia, and this literature course was my first exposure to academic research and writing. It was at this point that I began to realize every research paper is unique and complex, as requirements change based on the field of study, the course, and even the instructor. Since my skills and antecedent knowledge were limited, my first instinct was to go straight to Google Scholar and search for sources there because I didn't know where else to start. I knew the university library was available to me, but since I had never used the library before, it seemed easier to look for sources online through a platform I was comfortable with. I scrolled through the various results and chose sources that agreed with my argument. The sources that disagreed seemed irrelevant, so I ignored them. Once I found six sources that agreed with me, I pulled out six quotes and proceeded to write my final research paper around those quotes. I did what I could to meet the requirements of the final research paper, and this was the only way I knew how.

It wasn't until the end of my sophomore year of college that I was introduced to the concept of filter bubbles, and I was formally taught more effective research practices. Learning these things completely changed who I am as a writing researcher, and it has greatly impacted how I conduct research and how I integrate research into my writing. My **writing researcher identity**—how I think of and view myself as a writing researcher ("Key Terms and Concepts")—has become stronger over the last five years as I have learned how to conduct and use research in a variety of ways. However, I still get anxious when I start a new research assignment. I get caught up in all the requirements, and I catch myself checking boxes. Do I have 10 pages? Check. Do I cite six scholarly sources? Check. It's really easy to focus

on the list of things I have to get done and simply worry about finishing the research paper. When I have this "just get it over and done with" kind of mentality, though, I don't think about how I'm getting the research done. This mentality promotes poor information-seeking behaviors and research habits, which leads to a bigger issue: Are my information-seeking behaviors responsible? Am I ethically engaging with other sources?

These are really important questions to ask ourselves when we're beginning a research assignment or project and starting our research process. These overarching questions led me to another question: What other factors—beyond our own antecedent knowledge and experiences toward research writing—affect our information-seeking behaviors? In other words, what outside forces encourage poor research habits? Our information-seeking behaviors are impacted by both our approach to research and our emotions about it. If we have negative feelings toward the activity of doing research, then we might end up with substandard research practices. For example, if we try to finish a research project as quickly as we can and hurry through the research process in order to finish, then that would impact our information-seeking behaviors. I'm definitely guilty of this myself. However, this isn't always the case. Sometimes we have poor information-seeking behaviors because we stick to the platforms we're comfortable with, and some of the platforms we use to retrieve information on a daily basis encourage one-sided thinking. This is especially evident when we look at Eli Pariser's concept of filter bubbles. I argue here that we can use filter bubbles in relation to literate activity—specifically our research practices and information-seeking behaviors—to be more responsible when we seek information and engage with different research sources in our writing.

What Are Filter Bubbles?

In March 2011, Eli Pariser coined the term filter bubble in his TED Talk, "Beware Online 'Filter Bubbles.'" His book, "The Filter Bubble: What the Internet Is Hiding from You," was published two months later. I would highly recommend watching the full TED Talk online (it's only nine minutes) because Pariser explains filter bubbles in such a logical and eloquent way (scan the QR code in Figure 1 to see the TED Talk video). But just in case you don't want to go watch the whole video, I'll give you a quick rundown.

Figure 1: Scan this QR code to view Pariser's filter bubbles TED talk video.

Essentially, Pariser notices that his Facebook feed is being tailored to his likes and the links that he clicks on most often. Facebook tracks his history and starts to edit out things that he rarely clicks on or views. Pariser sees this kind of algorithmic editing on other platforms as well. Companies are focusing on personalizing the internet to our likes, which "moves us very quickly toward a world in which the internet is showing us what it thinks we want to see, but not necessarily what we need to see" (Pariser 3:40). This personal customization may seem convenient at first, but it's a serious problem because companies and algorithms are choosing what we can and can't see without our full, well-informed consent.

Based on his observations and experiences, Pariser created the term filter bubble and defines it as such:

> Your filter bubble is your own personal, unique universe of information that you live in online. And what's in your filter bubble depends on who you are, and it depends on what you do. But the thing is that you don't decide what gets in. And more importantly, you don't actually see what gets edited out. (4:10)

Pariser's definition highlights the most problematic thing about filter bubbles: we don't know what information we're missing out on. We're relying on algorithms to feed us information that we need, but those algorithms are narrowly designed to give us what we want. As Pariser notes, algorithms are computer programs that do not come with "embedded ethics" (6:30). Because these algorithms are simply focused on patterns of relevancy, they don't "show us things that are uncomfortable or challenging or important" (Pariser 6:45). Filter bubbles are one-sided—showing us the side we want to see—and, ultimately, unethical because they narrow our point of view and isolate us from each other.

What Do Filter Bubbles Actually Look Like?

Almost every social media platform you use online has some kind of personalization algorithm. It's important to see what filter bubbles actually look like so we can identify them and recognize what information is (and isn't) getting through our filters. Let's take a look at my Facebook page as an example (Figure 2). I went onto my Facebook, and this is what immediately came up. There are a few ads, which are all sponsored, and they are all stereotypically gendered. The big ad on my newsfeed is from a clothing company called Maurices—a company that I do not like or follow on Facebook. The Marketplace ads on the righthand sidebar are also clothing and makeup related even though I have never used the Marketplace feature.
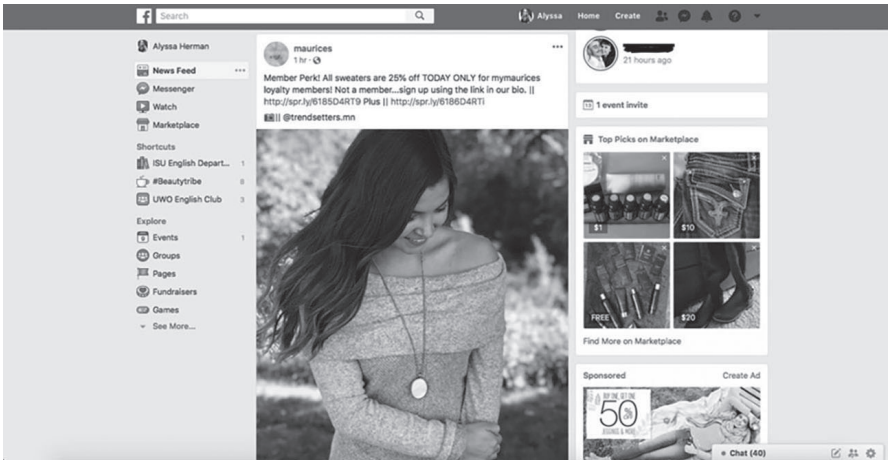
Figure 2: A screenshot of my Facebook newsfeed in 2018.

Some of these ads may be present because of other pages I like or other links I have clicked on in the past. However, I'm assuming some clothing and makeup ads simply show up because I identify as female on Facebook.

To show just how different our filter bubbles can be, I asked one of my colleagues, Dan Freeman, if he would screenshot his Facebook page as well. Let's take a look at Dan's newsfeed (Figure 3). Dan, who identifies as male on Facebook, has completely different sponsored ads than I do. The main ad on his newsfeed is a political ad, and the ads on his right-hand sidebar are for the Shedd Aquarium and Zillow, a real estate and rental site. It's almost laughable that my ads, as a female, are limited to clothes and makeup while Dan's ads, as a male, include politics, real estate, and social activities. The whole thing has a Victorian-separate-spheres vibe that I do not appreciate.
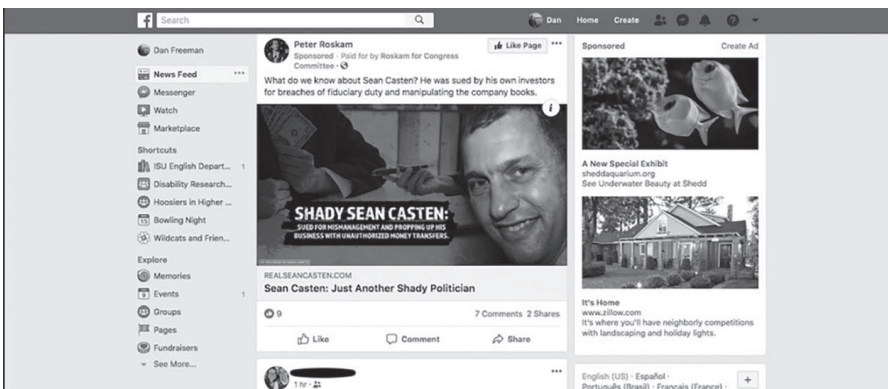

Figure 3: A screenshot of Dan Freeman's Facebook newsfeed in 2018.

Filter bubbles don't just exist on social media platforms, though. News sites that are supposed to be as unbiased as possible—Yahoo News, the *New York Times*, the *Washington Post*, and others—all use personalization algorithms in different ways. Even Google, a supposedly impartial search engine, uses personalization algorithms. Pariser argues that there is no such thing as a "standard Google" search anymore (2:28). How many times a day do we say "just Google it" when we don't know the answer? For me, it's a lot. But even if we Google the exact same thing, our search results will be completely different. To test this theory, Pariser had two of his friends Google "Egypt" and send him screenshots of their results. Their search results were so different that they weren't even getting the same news. One friend's results were based on Egypt's protests in 2011, and the other friend's results contained information about traveling to Egypt and vacationing there. This goes to show that many different webpages—from social media sites to news sites and search engines—are filtering the information that we receive. Filter bubbles, like the ones I've shown here, keep us from learning new things and truly narrow our perspective.

How Do Filter Bubbles Relate to Literate Activity?

When I first started writing research papers for different classes as a first-year college student, no one formally taught me how to seek information effectively. I attempted to teach myself how to research and gather information based on my antecedent knowledge, which led to bad research habits. I would pick a topic, come up with an argument, and then I would go look for research on Google Scholar that supported my argument. I thought it was OK—and totally normal—to choose sources that aligned with my views and just ignore the sources that contradicted my views. I didn't know how to engage with different sources and incorporate conflicting arguments into my writing.

Looking back, I see this as unethical information-seeking behavior and unethical writing on my part. Obviously, it's not my fault that I wasn't officially taught how to research effectively when I was a first-year student. But because I didn't have these research skills, I relied completely on my antecedent knowledge. I used the only scholarly platform I knew because I was comfortable with it, and I went about research in a completely backward way. If we want to be ethical in our information-seeking behaviors and research practices, then we should come up with a topic, research multiple sides of the existing argument on various platforms, and then come up with our own argument. This allows us to see different perspectives and engage

in a complex, multifaceted conversation. If we only search for and quote scholars who agree with us, then we're painting half of a picture and leaving out half of the argument. Sometimes we do this because it's easier, and sometimes, like in my case five years ago, we simply don't know any better.

So why did I automatically assume that this information-seeking behavior was acceptable? Probably because all the online platforms I used to retrieve information fortified this unethical, one-sided behavior. Webpages that deploy personalization algorithms to create filter bubbles negatively affect our **literate activity** because they encourage poor research habits, and they reinforce our antecedent knowledge. Filter bubbles show us what we want to see and what we already know. These personalization algorithms don't challenge us or push us to think about new ideas. This is problematic because we engage with filter bubbles on a daily basis, and it's difficult to avoid them.

> "**Literate activity** is a way to describe the complex activity involved in people producing and using texts across spaces and times, in ways that are shaped by our histories, tools, social interactions, resources, bodies, emotions, and relationships with the world. When we talk about literate activity, we include reading, writing, listening, speaking, thinking, and feeling—all social practices that influence how we make meaning and communicate" ("Literate Activity Terms").

We all engage with filter bubbles differently, but my personal engagement looks something like this: Where do I go when I need to quickly look up a bit of info? Google. Where do I get most of my news? Facebook, Twitter, and other social media platforms. If I see some news that is particularly interesting to me, then I head over to Google to learn more about it. Where do I go when I first start a research assignment? I go to Google to do a few preliminary searches on my topic. We're all different, but I imagine we have similar habits. We are completely immersed in webpages that create narrow filter bubbles for us, and we don't always see how these filter bubbles are negatively impacting our research practices.

Let's Pop Our Filter Bubbles!

Filter bubbles are so ingrained in our society that this may seem like a hopeless cause, but I don't think it has to be. We can't necessarily bring an end to filter bubbles altogether. (If we can, it's going to take some time.) But we can attempt to pop our filter bubbles through self-awareness and critically thinking about how we can improve our research practices. Once we know about filter bubbles—what they are, what they do, what they look like, and how they can lead to unethical research habits—it is our responsibility to

transfer that knowledge into our research and writing practices. Transfer is the process of taking the knowledge we learn in various settings and applying it in new situations ("Key Terms and Concepts"). As writing researchers, we can transfer what we know about filter bubbles by trying to work around them. How do we work around filter bubbles? I have learned to work around them through more ethical research practices.

First, I want to say that determining what is ethical is subjective, and I am in no way condemning Google and Google Scholar. Sometimes, a preliminary Google search is helpful when I'm looking for a topic idea, and sometimes a Google Scholar search is great when I'm looking for a broad review of my topic. These databases can be useful depending on the research situation and the kind of writing I'm doing. However, databases like Google Scholar still use different filtering algorithms. As Heather Campbell writes in her article "Google Scholar: A Credible Database?,"

> Google Scholar intends to be a place for researchers to start. As their "About" page says: Google Scholar provides a simple way to broadly search for scholarly literature. The way Google Scholar indexes or collects its information is different from other databases, too. "Scholarly" databases usually index articles on specific disciplines or topics, with certain journals being included on purpose. Basically, they're created by people. Google Scholar, like regular Google, is created by a computer: Google's "robots" scan different webpages for scholarly material, with less care going into the journals that publish these articles. (2–3)

In other words, Google Scholar cannot replace a university library database. Results on Google Scholar are filtered through various computer algorithms, so the results are less comprehensive and less relevant to specific topics. I have learned to rely more heavily on my university's library database (at ISU, it's the Milner Catalog) when I'm doing research because the sources I find there end up being much more useful in terms of relevancy and credibility. Using a university library database is a great way to avoid filter bubbles because these kinds of databases do not rely on personalization algorithms.

University library databases may seem daunting and difficult to navigate at first, but they're not as inaccessible as you may think. University libraries generally have resources to help you navigate their online database and their library as a whole. For example, as you can see in Figure 4, Milner Library has a webpage with a number of resources and an entire page dedicated to research. This page allows you to search for sources available at the library through the Milner Catalog, to search through a list of Milner Library's
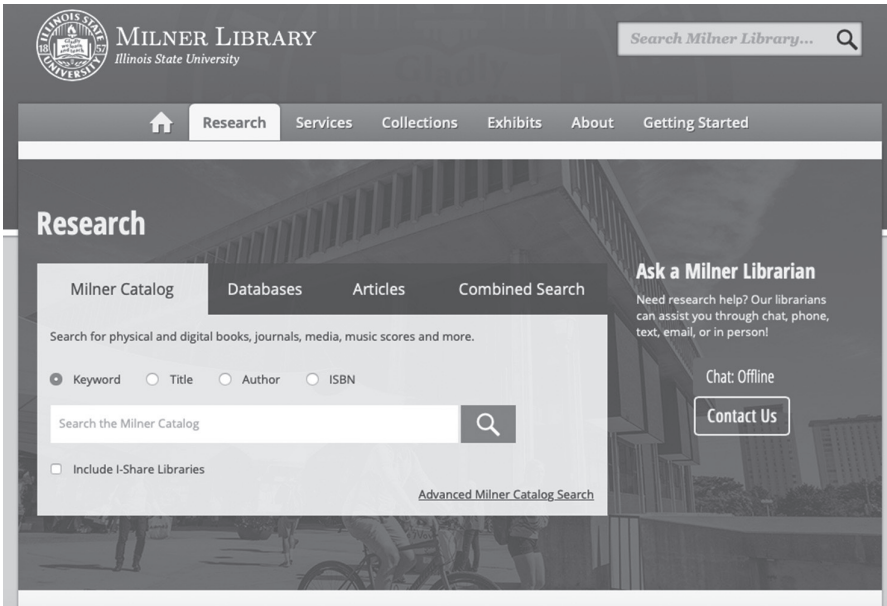
Figure 4: A screenshot of Milner Library's Research landing page in 2018.

database subscriptions, and to search for sources available at other universities that Milner Library may not have through I-Share and Interlibrary Loan. Even though this webpage is specifically for students and faculty at ISU, most universities have similar webpages that serve the same purpose. Sometimes, it's just a matter of exploring the webpage and learning to use the database through trial and error.

However, if you can't figure out how to navigate a university library database on your own, there are a number of ways to get help. At Milner Library, "librarians can assist you through chat, phone, text, email, or in person!" (Figure 4). So, if you're like me and you don't always feel comfortable with in-person social interactions, there are other ways you can get research help from a librarian. It's also important to note that university libraries almost always have subject librarians. Subject librarians have "an advanced education and experience in a particular subject or academic discipline. One of their most important assignments is to help you with your research. Subject librarians create online [Subject] Guides as a primary method of giving you help" (Hutchings). If you take a look at the screenshot in Figure 5, which was taken farther down on Milner Library's research webpage, you can see that Milner Library has subject librarians and subject guides to help you in your field and sometimes in your specific class. At ISU, every student is assigned a librarian based on their declared major, so it is possible to get personalized research assistance if that's something you want or need.

Figure 5: A screenshot of Milner Library's Research landing page with information about subject librarians.

As I've demonstrated here, university libraries offer many resources to make their databases more usable and accessible. It may take a few more clicks and a little more time than the average Google search, but it's important to slow down and build new research skills that move beyond just Google searching. Exploration is a key part of being a writing researcher, and it is absolutely necessary for conducting research and establishing ethical information-seeking behaviors and research habits.

I want to finish by issuing this challenge: Let's consciously decide to pop our filter bubbles by actively looking for what we need to see instead of simply looking at what we want to see. We can't allow filter bubbles to isolate us from each other and narrow our perspective because this negatively impacts our literate activity and our world. Filter bubbles encourage one-sided thinking and poor information-seeking behaviors, which may lead to unethical research and writing practices if we allow it to.

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Notes