

Library Research for Geography and Environmental Studies Students

Tutorial 3: The Academic Information Ecosystem

In this video, we'll talk about something you'll rarely talk about at university, but something that's critical and supports the entire academic enterprise.

I'm referring to the academic information ecosystem.

This information ecosystem is a vast world of information, both electronic, and print, that exists to support the research enterprise.

It's a system of producers and consumers, just like a physical ecosystem.

Like any large system, it can be confusing to navigate and understand.

That's why we'll take a few minutes to explore the inner workings of that system now.

The better you understand it, the less confused you'll be, and better prepared to do high quality research.

If you visit the library homepage, you'll see our website has a search box in the middle.

This is one entry portal into the academic information ecosystem.

The portal that we're using here is our library "discovery system" named Omni.

If we do a search here on climate change and forest fires, we'll get lots of results.

Drilling down into these results, we see books, articles, dissertations, reports, even video.

All kinds of results.

But what's happening here?

Where are all these results coming from?

To answer that, let's step back a moment.

We've already learned about how researchers – or scholars, as we've also noted, communicate through various methods, and what their preferred modes of communication are.

I call the system that has grown up to support scholarly communication the Academic Information Ecosystem.

Like an ecosystem, there are ways for you, the consumer of information, to access the system and get at the information that lives there, put out by information producers.

Some are better, and more efficient than others.

That's what I'll show you now.

Let's start with a database, in this case the Environmental Science Collection database.

If you've never encountered the concept of a database, think of it as an electronic container of information.

This database contains thousands of records for individual journals in environmental science.

And those journals contain within them, individual articles.

There are other databases that exist, like the Biological Science Collection, and ERIC, the Education Resources Information Center.

These databases have their own journals that they provide exclusive access to.

But some of the journals, many in fact, are shared across multiple databases.

Some databases also contain unique content, like dissertations and theses.

This content can also be shared with other databases.

Then, note these databases can be searched through larger meta-search platforms, like ProQuest, in this example.

As we move "up" through the ecosystem, we encounter giant information companies that license and provide access to journals and databases as we just saw.

Some of these include ProQuest, Clarivate, which owns Web of Science, and ExLibris.

ExLibris is the provider of our Omni system.

As in our previous example, each database contains journals that can be shared by multiple other databases.

Omni has multiple types of content, including articles, books, reports, and video.

Omni also shares many journals with other databases, but some it doesn't.

So, what are the takeaways from all this?

First, the academic information ecosystem is complex.

It will take a while before you're familiar with how it works.

Like our scholarly conversation, it takes a while to learn the language and the conventions to become fluent in that conversation.

What we've touched on here today is just a very cursory overview.

Secondly, not one place has all academic information within its purview.

For many of your first year assignments, you probably managed to find what you needed using Omni.

But in second year, and beyond, you'll need to do more comprehensive and sophisticated searches.

As you do that, you'll probably find it helpful to consult either a discipline-specific database, or more than one database to ensure you're getting the best and highest quality results.

Sometimes those specialty databases like GeoBase and Web of Science are great to narrow down into a particular field of research.

Check our Subject pages to see what databases fall into your particular discipline.

And don't forget, if you have any questions, feel free to ask me.