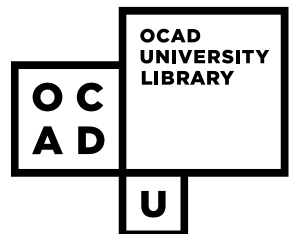


# Research Handbook

Library Research Skills and Tips  
for Undergraduate Students

OCAD University Library Services



# Contents

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Welcome to the OCAD U Library Research Handbook!

We hope that this resource will help you to develop some useful skills and confidence in finding and using the information that you need to create academic and creative work at OCAD U.

Researching in an academic environment can be intimidating; there are so many conflicting pressures, concerns, and questions that come up throughout the process. But don't worry; these anxieties are actually a really important feature of research! Studies show that researchers that feel pressure, concern, and are plagued by questions in the early stages of researching are the ones that end up discovering the most compelling results at the end of their research journey.

An important factor to success, however, is the ability to take control over that anxiety and move forward to find the information you need to complete a research task, whether it's building an argument for an academic essay, analyzing a case-study, engaging with design thinking in order to problem-solve, or creating a meaningful work of art.

In the library, we call this skill set information literacy: a set of strategies that you can use to expertly navigate through our complex information environment. Information literacy helps you understand what information you need, how to find it, and, most importantly, why this information is important. This entire process—from beginning to end—is all part of turning the “raw materials” of information into the “finished product” of knowledge.

Sincerely,  
The OCAD University Librarians

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# 1. Research is like creating art

## 1.1 What is “research”?

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Information comes in many forms: text, image, video, audio, even digital code. All are valid ways of conveying information to help you build knowledge. If it inspires and informs your work process or output, just about any experience can be considered research.

As a student at OCAD U, start thinking of research as a constantly evolving process of encountering and acquiring information through exploration; a process that is a vital part of making sense of information and turning it into knowledge. In a way, research is much like the exploratory process of creating a work of art.

Think about the strategies used for producing a painting; you sketch out a general outline on the canvas indicating the form and composition, but it is only through interacting with an artistic medium—such as oil paints—that you learn about what you can or even cannot portray. Almost inevitably, your initial ideas and assumptions about the artwork change as you move from the blank canvas through to the finished work of art. The same analogy can be made for developing and executing ideas through processes of design.



Also think about the process of selecting reference images for a work of art or design: you want to find the best, most specific references that will let you express your artistic ideas. Just as you would be critical in choosing and manipulating reference images that inform your visual work, you want to think critically about the textual sources you select and how you arrange them to build the argument in your written work.

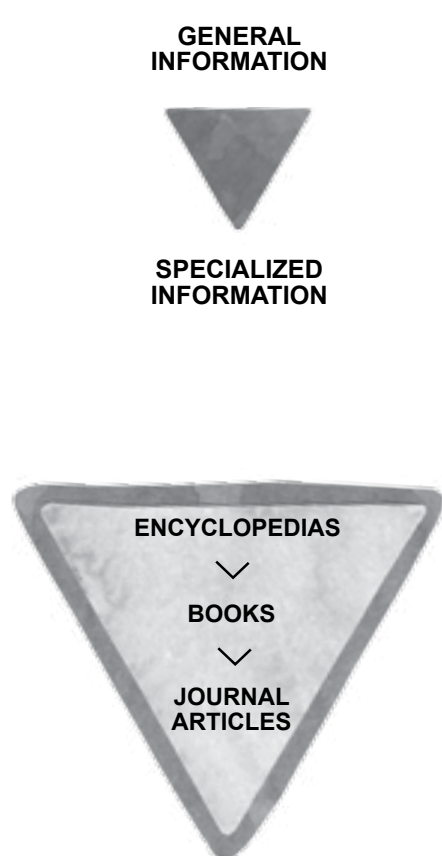
Despite the almost infinite amount of information available through the internet, it is often difficult finding quality sources; so instead, we often default to the images most readily available on the first page of a Google search, regardless of their quality, relevance or copyright restrictions. When accessing textual research, we can fall into similar habits of not caring about the credibility of our source material, even though this may mean that we begin creating knowledge from flawed, ineffectual, or even biased sources. Effective research allows us the opportunity to work through these problems and—supported by critical inquiry and insight—identify the best information for helping us take our own ideas and placing them in a new context.



## 1.2 Research as process

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When developing a visual idea, we usually begin with the broadest shapes and forms, then gradually add in more and more detail. The inverted pyramid is a similar process; it encourages researchers to begin with sources that provide broad coverage of research subjects then, as one becomes more and more informed, move to information with a narrower focus. Similar to how the tools you use will change according to where you are in the creative process—for example moving from broad brushstrokes to fine-tuned details in a painting—the information sources used in the research process should change and become more focused.



Try beginning with an encyclopedia entry to provide a brief summary of your topic, to introduce you to the specific vocabulary of the subject (which is helpful when choosing search terms), as well as to important writers, events and dates that you need to know to understand the topic from a wider perspective. From there, move to locating books and journal articles. Typically, journal articles will have a narrower focus than books, though that is not always the case (for example, some journal articles provide general overviews of a topic while some books are about very specific aspects of a topic).

## 1.2.1 Starting with broad strokes

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Wikipedia can be a very useful tool, one that most people use as the default starting point for all research. However, since Wikipedia entries are crowd-sourced, there is no guarantee that the content you encounter is accurate or unbiased. The OCAD U Library subscribes to many online encyclopedias that can serve the same purpose as Wikipedia; but unlike Wikipedia, most can be included in your work and cited as academic sources.

Try some of the following academic encyclopedia portals; you will be impressed at how helpful they are for academic research:

- **CREDO REFERENCE:** a portal of over 750 academic encyclopedias, guides, handbooks; use the concept map to explore a topic using a visual mind-mapping tool.
- **ENCYCLOPEDIA BRITANNICA ONLINE:** entries cover all aspects of international cultures, history and sciences; includes the Merriam-Webster Dictionary & Thesaurus and the World Data Analyst, which provides comparable statistics for all nations.
- **OXFORD ART ONLINE:** an excellent first stop for art and design research; includes detailed full text articles on topics from all cultures and time periods, images from Grove Dictionary of Art, Encyclopedia of Aesthetics and other art and design reference resources.
- **ACCESS SCIENCE:** offers articles from McGraw-Hill Encyclopedia of Science, Yearbooks of Science & Technology, biographies of well-known scientists and definitions of scientific terms. Content contributed by more than 5,000 researchers, including 36 Nobel Prize winners.

# 2. Research as creative process

## 2.1 Start with a sketch

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Even if you are working in a limited time frame, make sure to give yourself time to think about your assignment and the type of research you need to do. In developing visual work, most artists and designers would explore basic concepts, ideas and compositions in their sketchbooks before starting the final work. Taking a similar amount of time at the beginning of textual research will save you time in the long run.

### 2.1.1 Research sketchbook tips

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- Ask yourself what is required in the assignment. Write an outline or a checklist of things you need to achieve; think about creating a “sketch book” for your textual research!
- Ask yourself what you need to learn about your topic before you can move forward in the research and writing process. Remember that your answer to this question will change and adjust as you read through sources, gather information and develop a better idea of what you wish to or need to focus on in your assignment.
- Brainstorm a list of search terms that you can use to find sources to answer this question, but try using a thesaurus or an encyclopedia entry to help you generate search terms that are relevant to the topic. Sometimes the words you

use to describe the topic may not be the terminology used in a book or article, and most research databases do not automatically look for synonyms the way that Google does. Having a list of possible search terms ready will help you when you start looking for sources and will prevent you from getting stuck or frustrated when you can't find what you need. Again, as you read through sources and gather information, your list of search terms will adjust and grow.


- Try using this outline or checklist as a framework for building your research; write down citation information for books or articles, making sure to include quotations from these information sources (with page numbers) and notes as to how they are relevant, include images, and add in your own commentary. This brainstorming outline could become the eventual framework for your final research assignment!

## 2.2 Choose the best tools

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Much as a painter is familiar with the technical capabilities of using a palette knife and a designer is familiar with the possible applications of tools in their software, researchers should learn to pick the best search tools to build a collection of information sources. Getting familiar with various search tools will require an extra investment in time at first, but will save time in the long run.

One of the best research tools available to OCAD U is the Library's Summon Search which allows you to access almost all of the Library's physical and electronic collections through one search box. The Summon search, like most other databases, has many filters (explained on the next two pages) which will help you refine your results to those that are the most relevant to your search needs.

REFINE YOUR SEARCH 

Any ▾

- Full Text Online
- Scholarly & Peer-Review
- Peer-Review
- Library Catalogue

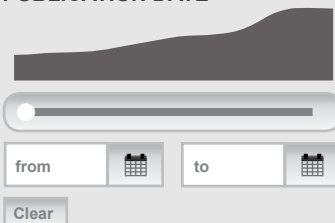
CONTENT TYPE



Any ▾

- Newspaper Article (81,693,663)
- Journal Article (39,636,385)
- Magazine Article (15,594,802)
- Newsletter (13,740,551)
- Book / eBook (3,021,700)

More...

PUBLICATION DATE



from  to 

Clear

DISCIPLINE

Any ▾

- medicine (3,451,707)
- engineering (2,591,060)
- business (1,931,472)

- Limit to peer-reviewed or scholarly articles, saving you time from having to evaluate your resources.
- Limit to full text. This means your results will include the full article, not just a citation for the article.

- Limit by selecting or deselecting a specific content type such as journal articles, newspaper articles, books, book reviews, images or videos. Think about what type of material will be most useful; for example, if you are writing about a very recent event, newspaper articles are a better choice since the editing process for journal publishing takes time.

- Limit by date, in case you need articles written in the past year, 5 years, or if you want to see what was written on a topic during a particular time period.

- Limit by discipline to retrieve results relevant to the discipline or perspective that you are most interested in.

- Within Summon, limit to Library Catalogue to see only result for physical books and other items in the OCAD U Library. Summon can be a more effective tool for searching than the Library Catalogue since it uses Google Books metadata to keyword search the entire text of the book, then it aggregates the results with our holdings at the OCAD U Library.

When available, Summon includes summaries of books, articles and other materials. A **summary** provides a brief overview of what the article is about. This can help you determine whether the article or item in question is actually relevant to your research, beyond what its title may indicate. Click on “Preview” at the bottom of a search result to expand this information.

Many scholarly articles start with an abstract. An **abstract** is like a summary in that it includes the main points of the article. Unlike a summary, an abstract also includes any conclusions or findings drawn from the research. Reading abstracts and summaries will help you narrow down which articles are most relevant to your research and will ultimately save you time from reading lengthy articles that end up not contributing to your research.

For example, searching for “education” and limiting to the discipline of Women’s Studies will give you sources on the topic written from a feminist perspective.

## 2.3 Learn formal techniques

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There are formal principles and physical properties in colour theory or in artistic mediums that are certainties and do not change. For example, a photographer knows intimately that the size of the lens aperture has a direct impact on the depth of field. So too there are set formal elements in conducting research using scholarly search tools.

### 2.3.1 Boolean Logic

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Summon, and most academic research databases, will allow you to use a process called Boolean Logic to develop a sophisticated combination of search terms, called a search string. Boolean Logic uses connecting terms called Boolean Operators which alter how the search terms will be used to produce a set of desired results. The Boolean Operators are **AND**, **OR**, and **NOT** and must always be capitalized to distinguish them from your search terms. In Summon, your search string must be encapsulated by quotation marks, as seen in the examples below. In other databases, such as JSTOR, the quotations are not necessary, or may have other functions.

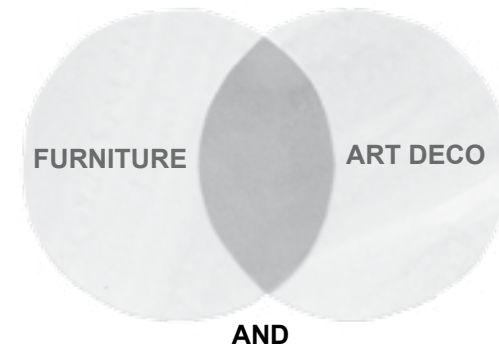
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Use the **AND** operator to:

- combine concepts
- make your search results more specific or focused

For example, a search for “furniture AND art deco” will only retrieve results that include both terms in the text. You can use as many operators as you need, for example: “furniture AND art deco AND France AND wood inlay”. Most databases automatically add the AND operator between your search terms but it is still useful to be aware of its effect. Try different combinations of search terms to see which ones generate the best results.

As you can see from the diagram below (where the search results are represented by the darker gray), the more search terms you combine with AND, the less results your search will retrieve. This is a good thing since it is better to have less results that are relevant to your research than more results that are irrelevant to your topic.

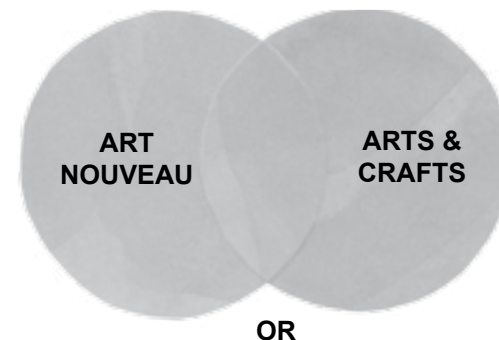


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Use the **OR** operator to:

- search using multiple synonyms of a word
- broaden out your search

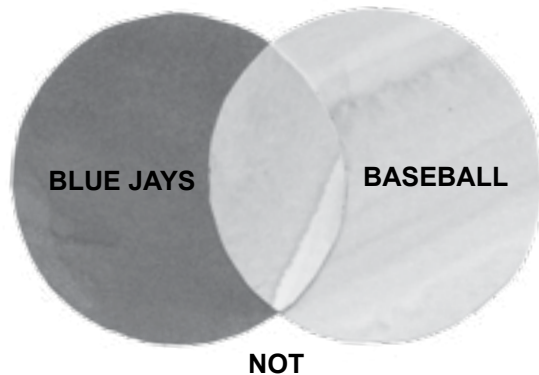
For example, if you are interested in hand-crafted, nature-inspired decorative work, you could search “art nouveau OR arts and crafts”, referring to two art movements that shared these aesthetic concerns. This search will retrieve results that include any of one of these terms in the text. As you can see from the diagram below, when you combine search terms with OR, more results are retrieved. This is a good search strategy to use if you are finding very little content on your topic and want to find more.



Use the **NOT** operator to:

- eliminate terms from your search

This is very useful if your search terms have a different association or meaning from your desired research. Using the NOT operator can make your search results more relevant. For example, searching for “blue jays NOT baseball” will provide you with results for the bird species and exclude results for the local baseball team. As you can see from the diagram below, using NOT in your search will retrieve less results for the search term, but they will be more relevant to your desired topic.



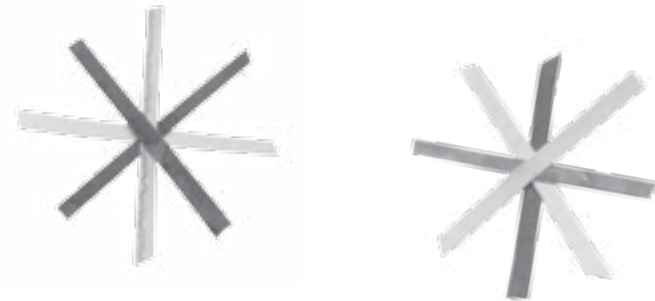
Once you get comfortable using AND, OR and NOT, you can combine two or more of the Boolean Operators in the same search. For example, you could search for “furniture AND art nouveau OR arts and crafts NOT table” to search for furniture in the art nouveau or arts and crafts movement styles, with the exception of tables.



## 2.3.2 Quotation Marks

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Use quotation marks to group search terms together into a phrase or concept. For example, searching “first nations” will provide results in which these two terms are used next to each other, rather than results that have the term “first” and the term “nations” appear anywhere within their text.



## 2.3.3 Wildcards

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Wildcards allow for even further flexibility in your search terms. The asterisk (\*) is used to retrieve results for all variations on a root word. For example, searching for econom\* will retrieve results for any word that begins with “econom” such as economy, economies, economic, etc. The asterisk can also be used in the middle of a word to retrieve variations that may occur in the middle of the word. For example, a search for comp\*ent will retrieve results for compliment, competent, complement and more.



### 2.3.4 Use the Help Menu!

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There are many more wildcard and search mechanisms that can be used within Summon and other databases. Look for a link to “Search tips” or “Search help” to quickly learn the mechanisms available in the search tool you are using.



## 2.4 Evaluate your work

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As an artist or designer, you likely spend time stepping back from your work; looking at it from a distance, or looking at it under different lighting sources. Textual research requires the same level of critical reflection.

Depending on the assignment, you may want to take some time to evaluate the source or the validity of the research. For example, a study including 100,000 test subjects will have a much broader representation than a study based on focus group interviews with 50 test subjects. Depending on your work, you may want to familiarize yourself with study types and designs and how they affect the data produced.

Evaluate your sources for cultural or historical bias. How does the identity of the author affect their view on the topic they write about? What is at stake for them? What cultural or historical biases are affecting their views on a topic or issue?

The Cornell University Library has developed a good resource for evaluating the authority of sources on the web, available at <http://guides.library.cornell.edu/c.php?g=32334&p=203769>

# 3. Research skills

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Creating a written academic assignment is like creating a collage. Sources cited in an academic paper are compiled in similar manner to the process of collaging images from other published materials to create something new. What is different, however, between textual research in an academic environment is that researchers are required to keep track of original source material. For an artist or designer, this recognition of an author’s original ideas should not be surprising. Think about how you would feel if a large retail store began selling expensive designer t-shirts with an image of your art on it; all without your knowledge or consent!

Respect every other researchers’ original ideas by having a strategy in place at the very beginning of your research for keeping track of sources as you encounter and read them. As mentioned earlier, consider keeping a research journal or sketchbook. This becomes useful when you are at the writing stage of the assignment and need to remember where a particular piece of information comes from, or where you first encountered a fact or idea.

## 3.1 Documentation basics

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The quality of research done in any medium relies on the quality of the notes taken during research. It’s difficult, if not impossible, to responsibly use a source or even cite one without knowing vital information about it.

Good note-taking practices begin with this basic first step, which should be consistently repeated whenever you come across a new source. Record the following important information as soon as you find a source:

**Name of author(s):**

**Title of the source:** (If the item is a book, record the book title. If it's a chapter in a book, record the book title and chapter title. If it's an article, record the article title, journal title, and the journal issue or volume number.)

**Date of creation/publication:**

**Publisher name and location** (for books):

**Date that you found/saw it** (required for online sources, which may change over time):

**URL** (Often URLs in databases are automatically generated and will not work again later. Most databases will offer a "permalink" or "stable URL" in the record of the source which can provide consistent access):

**Website name** (if you found in the open web, not in a subscription based database):

**Page numbers** (if available):

**A brief note for yourself as to why this source is relevant or what type of information it contains** (saves time from having to re-read articles!):

### **3.1.1 Documentation tools**

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There are numerous tools for organizing your research, some are free (or open source) while others are proprietary and cost money.

- **Zotero**, a free browser plugin that allows you to save citations, organize them in folders, attach PDFs of full text articles and add notes about their contents. Create and organize your folders within Zotero to divide your research for different courses and assignments. Zotero also offers an additional plugin for Microsoft Word which will pull citations out of your Zotero files and automatically generate a works cited list based on the citations used in the paper.

- **For more options** visit [ocad.libguides.com/citingsources/citationmanagement](http://ocad.libguides.com/citingsources/citationmanagement), where OCAD U Librarians have prepared a guide that lists and compares various citation management tools.

## 3.2 Documenting text sources

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Having a consistent strategy can be helpful when you are writing your assignment. A very common approach is to cut and paste quotes from various sources into one text document and refer to that while writing the assignment. While this approach seems to have the advantage of speed, it can actually take longer, especially if you are unable to remember why you selected a quote and where it came from. It also opens up possibilities of error: you might associate a quote with the wrong source, or even end up confusing your ideas with those presented by another author.

### 3.2.1 Documentation tips

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- Start taking notes and summarizing the relevant information from the source in your own words right away. If you find a quote that is useful, start by writing your response or thoughts about it, followed by the quote.
- Documenting your response right away will keep you focused on what is important and relevant to your assignment.
- Always make sure you put quotation marks around quotes so that you never have any confusion as to which words you have composed and which come directly from the source.

## 3.3 Citing textual sources

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Citations can be frustrating, but they are essential for putting the “finishing touches” on your writing. Think of them as a tangible way to track the history of an idea, referencing it back to the original source. Also, envision citations as a form of critique or peer-review: in studio practice you show your work to peers in critiques to receive input on form, style, concept; in a way, citations are like dialogues

with other researchers through the academic structure of your writing!

There are many web-based tools that will automatically generate citations for you. While these can be immensely useful, allowing you to focus on incorporating references into your writing correctly instead of getting stuck on the specifics of style, it is still important to check that these computer-created citations are correct. The technology uses the information that is associated with the source and may make strange choices if citation information is missing or has not been inputted correctly.



### 3.3.1 Citation tips

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- Most databases will automatically generate a citation based on a selected citation style. Look for a “Cite it” button or link.
- The Summon Library search will automatically generate citations. Click on the quotation mark (”) at the top right corner of the search result, select your desired citation style in the pop up window that appears, then copy and paste the citation.
- The EasyBib website, [www.easybib.com](http://www.easybib.com), will automatically generate citations according to your selected citation style.
- Visit the Citing Sources guide prepared by OCAD U Librarians for more tips and links to useful online resources for citation: [ocad.libguides.com/citingsources](http://ocad.libguides.com/citingsources)

# Need more help with Research?

Librarians are available to answer your questions on the reference desk in the Library any time that the Library is open. Don't be shy; we love to help! Check our current hours of operation at [ocadu.ca/library](http://ocadu.ca/library)

## Visit in Person

Dorothy H. Hoover Library  
Room 215, Level 2  
MCC, 113 McCaul Street

## Call

Library Referece Desk  
416 - 977- 6000 ext. 334

## Chat

Click on the Ask a Librarian logo on the Library home page to chat with a Librarian. This service is open late in the evenings and on weekends.



## Email

Send your questions to [libraryresearch@ocadu.ca](mailto:libraryresearch@ocadu.ca)  
We strive to respond to all emails within 24 hours.

## Check out our Subject Guides

OCAD U librarians have designed a series of subject guides that recommend resources and strategies for searching for each discipline taught at OCAD U. Visit the appropriate page to find specific guides for each major or department:

- [ocad.libguides.com/art](http://ocad.libguides.com/art)
- [ocad.libguides.com/design](http://ocad.libguides.com/design)
- [ocad.libguides.com/flas](http://ocad.libguides.com/flas)

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