

Research Process

Performing and submitting research on an Article One Study involves a mixture of organization, creativity and persistence. Our team has developed the following process as the most efficient and effective way to search for excellent prior art. This is based on feedback from our top Researchers, as well as our own experiences. By following this process, you will have the best chance at finding the winning technical references. The process consists of three main phases:

1. **Background Information** – Learn about the technology and gather the key elements
2. **Develop, Run and Review Searches** – Test and re-test each search strategy
3. **Evaluate and Submit** – Review and submit your final references

Phase 1: Background Information

1. **Select a Study based on your interests and expertise**

Choosing a Study that aligns with your background and expertise provides great value to the Study. Utilizing the knowledge you already have makes it easier to understand and find the truly inventive features within a Study. Individuals who are subject matter experts may also have access to documents that are outside of regular online searching.

2. **Read the Study Description**

The Study description provides a short synopsis of the key items of interest within the Study. When reading the Study description thoroughly, you can dissect or breakdown the key items of interest to guide your initial search process.

3. **Find general knowledge on the subject matter**

Wiki and other web search - Wiki and other web searches can be used as a great source for explaining technology points or words to help guide your search. Wiki can be used to find leads based on the references supplied at the end of the Wiki page. General web searching should be used to help provide you with leads such as inventors, companies, and products that might help your Study efforts.

Other Studies in the technology area - Studies on the AOP site or studies from other universities/research labs/companies can provide you with general knowledge to give you guidance on the Study you have chosen.

Personal experience and network - It can be very fruitful to utilize your experience in personal and work vocations as you or people you may have associated with might have valuable references. Reaching out to your personal or work-related network can help facilitate you with subject matter experts in the field of the Study you are currently undertaking.

4. **Outline elements from the Study Description**

Outlining elements in the Study description provides you with a breakdown or bulleted list of elements to help with your initial search. Separating out key elements or technological phrases provides you with an easier way of viewing the elements of interest.

5. **Outline elements from the Patent PDF based on Claims**

Performing an outline of the claims from the Study patent is the best way to truly understand the invention within the Study. When outlining elements from the claims of the Study patent, you

can see the unique elements and inventive features to drive your search. Outlining makes your organization of the crux of the patent easier and ensures that every fact/element is included.

Outline elements from the Cited References on the Patent - Outlining elements from the cited references provides you with a history of the invention on the Study patent. The cited references on a patent display some of the inventive features utilized in the Study patent.

Reviewing Study Patent File History - The Study patent file history can be found on the [USPTO Public Pair](#) website. The file history can contain helpful search strategies derived from the Patent Examiner's search strategy. The file history also can contain more information on why the cited references were cited against the Study patent and why they were not sufficient to prevent the allowance of the Study patent.

Learn more about: [Reading a Patent](#) and [Patent Claims](#)

6. Find references describing the history of the technology for additional background

Additional documents that describe the history of the technology provides great background information as they depict a timeline and potential areas to begin your search.

Phase 2: Develop, Run and Review Searches

(Repeat until Unique References are Found)

1. Apply Search Parameters

From the research you have performed above, you will have developed parameters to be used in your initial search.

Who: Related companies, inventors, etc. who utilize this technology - Identifying key companies, inventors, and products in the technology space of the invention will help guide you to some contributors of prior art within the invention.

What: Elements of the technology - Once you have identified elements of the invention from your research of the Study patent claims/cited patents/Study description/background research/your own experience, you can utilize these elements in your search parameters

When: Latest Date for Prior Art (LDPA) - When applying your search parameters it is imperative to stay within the guidelines of the Latest Date for Prior Art that is associated within the Study page. In some instances on the Study page there may be a LDPA and preferred LDPA.

Learn more about the [Latest Date for Prior Art](#)

2. Develop Search Strings – Broad and Narrow

Broad search strings provide you with a wide array of documents and the goal is to catch as many pieces of prior art as possible. Narrow search strings are very focused and the goal is to expand on specific areas of interest within the invention.

Learn more about [Search Strings](#)

3. Choose Databases – Broad and Narrow

Utilize broad databases such as Google Patent, Google Scholar, USPTO, and Espacenet as starter tools to help you understand the technology on a faster scale. To narrow your search and find stronger pieces of prior art, you can use Thompson Innovation, LexisNexis, IEEE Xplore, Pubmed, CiteseerX, ACM Digital Library, or other databases/journals in your local library.

Learn more about [Resources & Tools](#)

4. Perform Search using multiple sets of elements and parameters

Through utilizing the Databases you choose, you should create combinations of broad terms/elements and narrow terms/elements that will help find a set of unique set of results to then submit to the Study. The goal is to find a uniqueness factor that pertains to the key inventive features of the Study.

5. Review Results against:

Known References - Review the results you have found against the known or cited references on the Study patent

LDPA - Review the results you have found against the Latest Date for Prior Art on the Study Page.

Study Description - Review the results you have found against the Study Description to see if they are on point with the key inventive elements of the Study.

Patent and Claims - Review the results you have found against the Patent and Claims within the Study Patent to be absolutely positive they contain the key elements of interest.

6. Update Strategy and Repeat Search

When reviewing your results you might have to make updates based on the Known References, LDPA, Study Description, Patent and Claims. If so, update your search parameters and repeat your search.

Phase 3: Evaluate and Submit

1. Select references that best relate to the:

- a. Claims*
- b. Study Description*
- c. Known References*

2. Submit References

Carefully submit a few prior art references to the Study that contain a uniqueness factor. The most valuable prior art references are non-patent literature, demos, screenshots, user manuals, print journals, international literature and translations of foreign language documents. References that are obscure and unique are the most valuable, the most fun to research, and give you the best opportunity to win a Study. Once you submit a few references based on the uniqueness factor, there may be a lead, additional tags or follow-up information sent to your email based on feedback of the references you have submitted.