Prior Art Searching

What is prior art?

- Prior art represents **any** evidence of the existence of your invention.
    - Even in an invention never becomes a physical product, there may be evidence of its existence, such as a public description of an invention (and/or use thereof) similar to yours.
- Common examples of prior art:
    - Patent applications (if published)
    - Journal articles
    - Public presentations
    - Commercial products or an invention that has commercial use, even if not sold as a product
    - Public demonstrations of an invention

Benefits of prior art searches:

(1) Novelty: prior art searches help determine whether your invention is novel and non-obvious.
(2) Market fit: prior art searches can determine how your invention fits into the current field/market and if there are opportunities to penetrate the market, which is important for commercialization.
(3) Mitigate rejection/amendments: prior arts searches can be valuable for defining the claims of an invention in a patent application and preventing the addition of claims that are not patentable, reducing the risk of the patent being rejected or the chances of having to extensively amend the application.
(4) Preparation: prior arts searches make it easier for patent attorneys to determine which components of an invention are patentable and to devise an appropriate patent strategy.

Tips and considerations:

(1) Be mindful that, by law, the lack of identifiable prior art is not indicative of proof of novelty, no matter how thorough or official the searches are.
(2) Depending on the type of invention, it can take as little as a few minutes to identify prior art on the internet. However, to save time and money drafting patent applications and risk having to amend applications during examination, it is recommended that ample time and resources are devoted to prior art searching to ensure that a thorough search has been executed.
(3) Be mindful that prior art searches are intended to identify evidence that disproves the novelty of an invention, although the hope is that no evidence is discovered. Therefore, it is important to be unbiased and to not ignore any prior art that may be similar to your invention.
(4) Prior art searches can make an inventor more prepared for filing a patent application; however, inventors should not devise their own patent strategy or determine patentability based on their prior art discoveries.

Recommendations for conducting a prior art seach:

- A number of databases and search engines are available for conducting thorough prior art searches to determine if an idea similar to your invention has been described.
- To ensure that prior art searches are as comprehensive as possible, follow these strategies:

1. Identify keywords relevant to your invention

a. Consider all possible keywords and combinations thereof that might exist in the prior art relevant to your invention.
b. The keywords/terminology within patents and patent applications in the same or similar fields are not always consistent and may change over time, which can make it difficult to find relevant prior art:
    i. In addition, translations of patents from other languages to English (and vice versa) may change certain keywords.

Prior Art Searching

2. Utilize patent databases

(1) **Google Patents**: free patent search engine (patents.google.com)
(2) **UPSTO Patent Public Search**: limited to applications and patents issued in US (https://ppubs.uspto.gov/pubwebapp/static/pages/landing.html)
(3) **Espacenet Patent Search**: access to over 130 million patent documents provided through the European Patent Office (EPO) (worldwide.espacenet.com)
(4) **World Intellectual Property Organization (WIPO) PatentScope**: free, global database of patents (https://patentscope.wipo.int/search/en/search.jsf)
(5) **Patent Lens**[1]: (lens.org/lens)
(6) **InnovationQ**[2]: (ip.com/products/innovationq)
(7) **Patsnap**[3]: (patsnap.com/login)
(8) **Scifinder**[4]: database of chemical and bibliographic information and is great for running scholarly searches on patents and publications, especially for small molecules (scifinder.cas.org)

3. Broaden search scope beyond patent databases

a. Search non-patent literature (i.e. journal articles, publications, etc.).
b. Google Scholar (scholar.google.com) is an excellent search engine for scholarly material.
c. Consult company websites and product pages relevant to your invention.

4. Compile search results into a portfolio

a. Patent applications are stronger when the attorneys who draft the applications and the examiners who review applications have access to the most up-to-date information.
b. Most patent databases allow you to save search results and compile them into a "portfolio" for future referencing.

5. Know your limits

a. The goal of a prior art search is to acquire a thorough understanding of the body of work relevant to your invention (and industry) that exists in the public domain.
b. However, it is impossible to identify every relevant prior art before filing a patent application.
c. Be mindful of your time and the resources that are available to you at the time of searching.

[1] Patent Lens is free for non-profit institutions
[2] Only Georgia Tech has a subscription to InnovationQ; Emory does not. However, BME faculty are credentialed at GT.
[3] Georgia Tech has a three-seat license to Patsnap. Emory does not have a license.
[4] Georgia Tech and Emory both have campus-wide subscriptions to SciFinder