



OBJECTIVES

- Generate a broad understanding of the technology landscape
- Identify current or nascent technologies that could be part of a potential solution
- Do an objective evaluation of competing technologies and document results



OUTCOMES

- Completed preliminary Patent search
- Documented findings on relevant standards and guidance documents (FDA)
- Documented academic and trade publications and articles or talks by key opinion leaders (KOLs)
- Analysis of competing technologies to de-risk the introduction of a new technology



NEXT STEPS

- Determine how IP space will impact business plan
- Determine what pains or gains customers perceive with current solutions to the problem (competitive products)
- Determine market size and clinical need for the potential solution



RELEVANT RESOURCES



[Google Patents](#)



[US Patent and Trademark Office](#)



[Patent Application Information Retrieval](#)

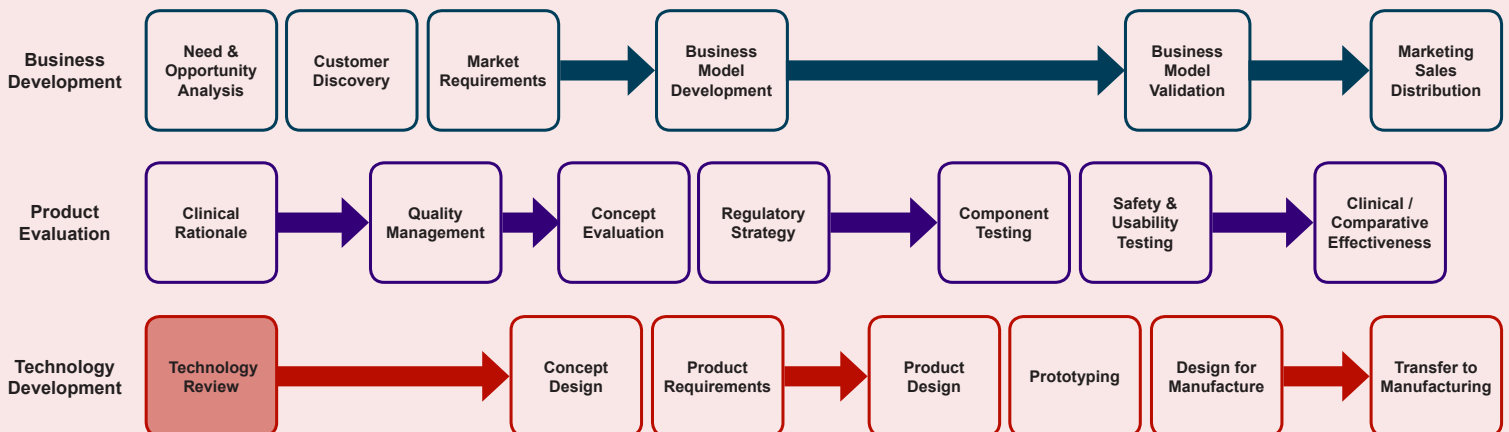


[Technology Review Supplemental Reading](#)



[Technology Review Worksheets](#)

COMMERCIALIZATION METHODOLOGY





TECHNOLOGY REVIEW

A Technology Review is an exploration of the technology landscape as it relates to the innovation. By becoming fluent in the technologies that are being used to solve similar problems, the innovator is better prepared to evaluate the strengths and weaknesses of alternative solutions.

Awareness and objective evaluation of related technologies and applications early on allows the innovator to focus efforts on those that are novel. How have others approached this or similar problems? Is there room for innovation in this space?

The goal of the patent search tutorial below, and of literature reviews and competitive analyses, is to search widely. Patent attorneys would charge upwards of thousands of dollars to search at this level of detail, however it is relatively simple to follow.

PATENTABLE TECHNOLOGY

- The idea must be novel, non-obvious and useful to obtain a patent
- There must be 'freedom to operate' – not violate another active patent

PATENT SEARCH APPROACH 1: GOOGLE PATENT

Example innovation being investigated: Patient Transfer Chair

1. Go to Google Patent and search for the key terms of the innovation (ex. Patient transfer chair) and choose a patent from the results to evaluate
2. Highlight the Application Number (numbers only!) and copy them

NOTE: Paste this number and other relevant information about this patent into the Intellectual Property Worksheet provided.

3. Go to the Patent Application Information Retrieval (PAIR) website and paste the Application Number into the search box that says “* Enter Number:

Search for Application: ?

Choose type of number:

- Application Number (EXAMPLE: 99999999 or 99/99999)
- Control Number
- Patent Number
- PCT Number (EXAMPLE: PCT/CCYY/99999 or PCT/CCYY)
- Publication Number
- International Design Registration Number (EXAM)

* Enter number:

4. Click on the Published Documents Tab and click on the View Button underneath the Full-Text and Image:

Patent Number	Issue Date	Full-Text and Image
5,438,722	08-08-1995	<input type="button" value="View"/>

The Center for the Translation of Rehabilitation Engineering Advances and Technology

TREAT is part of the National Institutes of Health (NIH) Medical Rehabilitation Research Resource Network (MR3). Funding is provided by the National Center for Medical Rehabilitation Research (NCMR) in the Eunice Kennedy Shriver National Institute of Child Health & Human Development (NICHD) through awards R24HD065703 and P2CHD086841.

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TECHNOLOGY REVIEW

INTELLECTUAL PROPERTY SEARCH GUIDE

- The Full-Text and Image page will bring up the following view, look for the Current CPC Class, copy just one of these classes to begin with.

NOTE: The CPC Class Number will be used to search for full-text patents in this class, which will likely be devices similar to the innovation.

Patient transfer chair system

Abstract

A patent transfer device comprises a cushioned chair with wheels that facilitates patient transfer in and out of a hospital clinical bed. The patient transfer device provides an entirely different method of transferring patients that avoids lifting the total body weight of the patient and that provides the maximum comfort for the patient.

Inventors: Jayamanne, Don J. (Glendale, CA)
Family ID: 22999988
App. No.: 08/262,989
Filed: June 20, 1994

Current U.S. Class: 5618, 5425, 581.1R, 586.1
Current CPC Class: A61G 5/006 (20130101); A61G 5/109 (20130101); A61G 7/1019 (20130101); A61G 7/1097 (20130101); A61G 7/1044 (20130101); A61G 7/1037 (20130101); A61G 7/1036 (20130101); A61G 7/10 (20060101); A61G 5/00 (20060101); A61G 5/10 (20060101); A61G 007/16 (20060101); A61G 1/618.425
Current International Class: A61G 7/10 (20060101); A61G 5/00 (20060101); A61G 5/10 (20060101); A61G 007/16 (20060101); A61G 1/618.425
Field of Search:

- Go to the USPTO Website link and click on Advanced Search. Type in the Query Text Box: "CPC/(paste the class data)" and remove any spaces

Query [\[Help\]](#)

CPC/A61G5/006

Select Years [\[Help\]](#)

1976 to present [full-text]

- The result of the search will be all the devices that fall into this specific class. Click on the patent(s) to get further information on them.
- Review Abstract and Claims and click through Images (link at the top or bottom of the page to see the line drawings of the artwork submitted with patent), and record findings in the Intellectual Property Worksheet (withing the Technology Review Worksheets).

PATENT SEARCH APPROACH 2: USPTO QUICK SEARCH

- Go to the USPTO Website link and click on Quick Search
- Type Key words into the Query Text Box such as 'Transfer' and 'Chair' as below:

[USPTO PATENT FULL-TEXT AND IMAGE DATABASE](#)

[Home](#) [Quick](#) [Advanced](#) [Pat Num](#) [Help](#)

[View Cart](#)

Data current through October 18, 2016..

Query: [\[Help\]](#)

Term 1: Transfer in Field 1: All Fields

Term 2: Chair in Field 2: All Fields

Select years [\[Help\]](#)

1976 to present [full-text]

[Search](#) [Reset](#)

Patents from 1790 through 1975 are searchable only by Issue Date, Patent Number, and Current US Classification.
When searching for specific numbers in the Patent Number field, patent numbers must be seven characters in length, excluding commas, which are optional.

- The result will show all devices with the key words entered. Find a device similar to the innovation and click on the patent to find the CPC Class Number. Use this in an Advanced Search as in Approach 1 to find more devices similar to the innovation

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PATENT SEARCH APPROACH 3: USPTO ADVANCED SEARCH

1. Go to USPTO Website link and click Advanced Search. Type in the Query Text Box 'SPEC/(keywords)' and remove any spaces (Ex. 'SPEC/(Transfer and chair and slide)')

Field Code	Field Name	Field Code	Field Name
PN	Patent Number	IN	Inventor Name
ISD	Issue Date	IC	Inventor City
TTL	Title	IS	Inventor State

2. Find a device similar to the innovation and follow same process as Approaches 1 & 2 for searching by CPC Class Number to find all devices in the same class as the innovation.

NOTE: Be sure to continue recording information in the Intellectual Property Worksheet.

LITERATURE REVIEW

Perform a thorough search of prior literature on technology feasibility. If affiliated with an institution, ask reference librarians for help finding the necessary information! There are links to relevant search engines in the Technology Review Supplemental Reading to get started; usually it is easiest to start with Google Scholar. Document results in the Literature Review Worksheet.

STANDARDS AND GUIDANCE DOCUMENTS

There are a variety of associations and organizations which govern standards on different technologies, some are listed in the Supplemental Reading. Become familiar with necessary standards or specifications this type of technology will need to meet in order to gain approval from these organizations. Pay particular attention to the FDA Guidance Documents if the technology will be a medical device. Guidance Documents can be searched under the link provided. Record search findings in the Standards and Guidance Worksheet.

COMPETITIVE ANALYSIS

Once the IP space and prior state of the art technology are understood, complete the Competitive Analysis Worksheet based on the technologies researched. This worksheet is arranged in a SWOT format (Strengths, Weaknesses, Opportunities and Threats).