

# The Product Development Cycle

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# “How did I get here?”

## Talking Heads

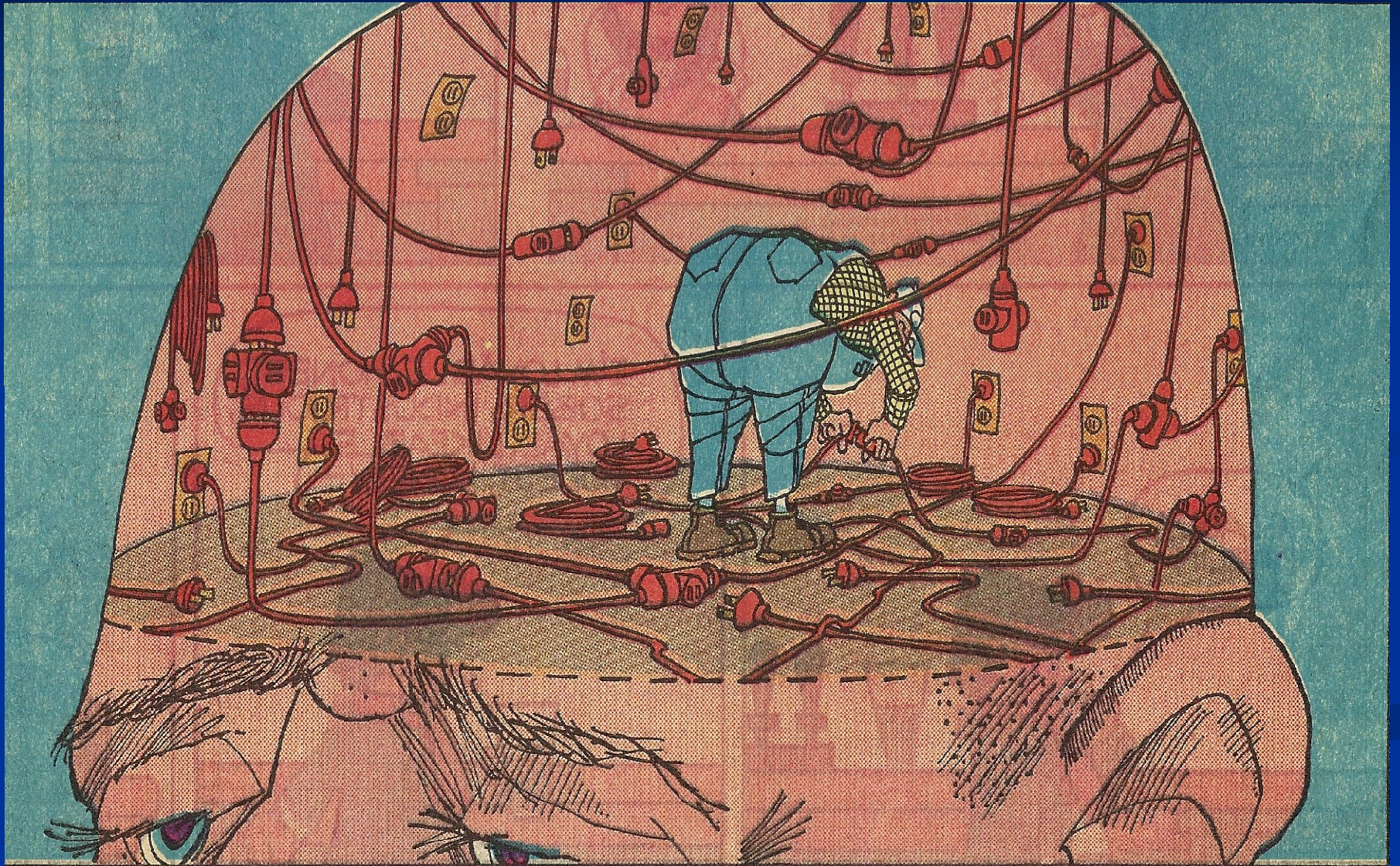
(for that matter, how did any of us get here?)

*“The successful inventor merges science, economic principles and law into a cohesive whole. This is an involved and complex study, which takes time, practice and information to do well.”*

Intellectual Property Frontline Journal



# The typical inventor's brain!





# Brad Feld

“Your Idea Is Not Special”

“Often entrepreneurs think their idea is brand new – no one has ever thought of it.”

Brad Feld

*“Google? Not the first search engine. Facebook? Not the first social network. Groupon? Not the first deal site.*

*Pandora? Not the first music site.*

*The list goes on.*

*MS-DOS? Not the first operating system. Lotus 1-2-3?  
Not the first spreadsheet.”*

Brad Feld

How many patents exist for  
barbed wire?



“Great entrepreneurs are already focused on the implementation of their idea. Not only have they implemented their idea, they’ve shown real users who validate their idea is important. And they quickly move past the idea to the *execution* of the idea.”

Brad Feld

“Products and their subsequent companies become great because of execution. First, they execute building a great product. Next, they execute building a great business. Finally, they execute scaling, sustaining, and evolving a great business.”

Brad Feld

“It’s awesome when an entrepreneur is obsessed with his or her idea. Every great product came from an obsession of an idea.

“But for every entrepreneur that shifted the obsession with the idea into an obsession with the execution of the idea, many more got stuck on the idea, and never focused on building something from it.”

Brad Feld

“I’m constantly looking for great entrepreneurs who have amazing ideas. But I don’t value the ideas. I value the entrepreneur’s execution of the ideas!”

Brad Feld

“An idea is one thing. Getting it to market is the true invention.”

Roger Jackson



“If it were easier, more people would  
be doing it.”

Common lore!

“The way to get started is to quit talking and  
begin doing.”

Walt Disney

# The “Idea”

- Start an Inventors Journal from the outset to provide a chronology – and a legal document – to notate and protect your development process. Have each page duly signed by others as you develop your idea.
- Explicitly define your idea in your journal. Include all notes, sketches, and technical descriptions. Note the purpose of your idea and its benefits over existing products at market. What makes it better? Improved utility, cost savings, time savings, a better process, etc.?
- Begin creating preliminary prototypes and/or design files.

# PROTECT YOUR IDEA FROM THE OUTSET!!

- “Loose lips sink ships”
- An appropriate and healthy dose of paranoia goes a long way in product development! It’s your idea. Don’t let others take it from you!
- Get appropriate Confidentiality Agreements in place whenever and wherever applicable. Your legal advisor should be able to provide you with the appropriate agreements to employ.

*“More than 95 of all patents never make money for the inventor. In no case should an inventor take on the three plus years and high costs of pursuing a patent until they really understand how they will make money from it. If investigation leads to the belief the invention can generate money – more than it will cost to proceed with a patent – then you should pursue a US Patent.”*



# Feasibility

- How much research have you conducted into market need and interest?
- Have you identified your competition?
- Have you projected timeframes for all particular phases? A total overall timeframe?
- Have you identified any/all potential regulatory considerations?
- Have you developed a business plan complete with pro-forma financials?

# Feasibility (cont)

*Size of opportunity:* A good first question for entrepreneurs to answer is whether the opportunity is big enough for them to get an appropriate return on their investment of time, energy, money, etc. If the opportunity is too small, it's probably not worth pursuing.

## Feasibility (cont)

*Complexity of opportunity:* A second question to ask is how complex the opportunity is. Specifically, how difficult will it to be to execute on the opportunity?

Will it require the cooperation of other people or companies who may or may not buy on? Will it require several "moving parts" to function in perfect harmony? If the opportunity is too complex and/or seemingly too difficult to execute, in most cases a different opportunity should be sought.

# Feasibility (cont)

*Amount of funding and resources required:* An opportunity must be judged with regards to how many resources are required to execute it.

Clearly, if the amount of resources is too much, the entrepreneur may not be able to accumulate the resources and/or the return on investment will be reduced.

# Intellectual Property: Phase 1

- Have you conducted a prior art search with an appropriate legal entity?
- A prior art search provides a legal opinion whether or not your idea is patentable under its own merits; if it is literally infringing upon the prior art of any others.
- A prior art search – depending on how extensive it is – can take into consideration foreign patent offices and publications above and beyond the US Patent Office and Publication search.
- If you haven't conducted such a prior art search, it is highly recommended! The appropriate legal advisor will request whatever materials and/or information to assist them in their search.



# Reduction to Practice

- Assuming all feasibility and intellectual property investigations have given you reason and encouragement to proceed forward, how do you intend to reduce the idea to practice, i.e., a fully functional prototype, a process, something that confirms the idea does indeed work as envisioned?
- Have you identified the appropriate resources to help you in the development and validation process?

*“Ideas” are worthless—and cannot be patented.  
Only inventions that are original, and provide a  
functional result can qualify for a patent.”*

Intellectual Property Frontline Journal

# Intellectual Property: Phase 2

- Assuming a prior art search has been completed with favorable result, have you filed a provisional, design, or utility patent application?
- Be fully and carefully advised as to how long any given pendency period may take...how this will affect your ability to potentially secure a patent. Given the lengthy pendency periods nowadays – minimal 3 years – how will this affect your efforts to commercialize your product....to raise investment capital?

# Intellectual Property: Phase 2

- What thoughts have you given to the international protection opportunities....their associated costs?
- Branding. What thoughts have you given for a trademark for your potential product...those associated costs?

# Concept & Validation Testing

- Given successful prototypical development of your idea, what peer or market evaluations have you conducted with it?
- What did you learn from your “first out” experience? Did you learn things in evaluation to further refine and improve the idea? How will this affect the IP you’re developing?
- How many iterations will it take you to reach the true pre-production stage?



# Pre-Production

- Have you identified all the necessary processes and resources required to commercially produce your idea?
- Have you identified all the cost centers required for appropriate market capitalization?

# Pathway to Market Models

# Self or Contract Manufacturing

*“It is a fact that determined inventors who produce and sell their own invention can take control – often reducing many of the typical licensing risks (i.e., relying on another company to properly manufacture their idea), and they can make more money...lots more (because they get the profits their licensees would have made).”*

# Self or Contract Manufacturing

- Will you develop your own manufacturing capabilities?
- Or....will you develop a contract manufacturing solution?
- Domestic or overseas production?
- Marketing, Distribution and Sales Considerations. How are things best sold in your product niche arena?

# Licensing

*“Although advertisements make it sound easy, companies will typically not buy your idea. By earning a US Patent, you will have created the opportunity to complete an invention that should be capable of delivering value to a company that may be interested in licensing your invention. Only then will you have a chance to earn invention royalty income.”*

# Licensing

- Licensing agreements are based on the inventor providing a company rights to license use of their IP. There are many types of licenses. Most are typically for manufacturing, distribution and sales.
- How do you plan on getting your foot in the door with those companies who might have an interest in licensing your idea and IP?
- Identify key trade shows. Many applicable companies will be at these trades shows. So will many of their senior new product people. This could be one of your most best “one stop shopping” opportunities!
- Use all social networking capabilities to your advantage! (Facebook, Twitter, Linked-In, etc.)

# Pre-Patent Funding

- Funding is very difficult in the early stages. Above and beyond your own personal investment, your funding will typically come from the following three F's: Family, Friends, and Fools!
- Other options to consider: Grants, SBA, Banks.
- Weigh carefully what you're willing to give up to any "investor" in order to receive such funding.

# Post-Patent Funding

- A patent opens many more doors, especially if you've validated your idea by the time you've been issued one. The patent provides an asset basis....something investors can hang their hat on. The patent provides street credibility....a basis of secured investment.
- At that point, you'll find Angel Investors, Venture Capitalists, and Banks taking your program much more seriously, and proving much more amenable at looking at your idea and business plan.
- Again. Carefully weigh what the other party expects in return for such investment. In many cases, they'll be seeking significant ownership and control in your company.



# Other Funding

Another option, especially for consumer products is Crowd Source Funding. This topic was covered in a presentation in December.

[www.Kickstarter.com](http://www.Kickstarter.com)

[www.Peerbackers.com](http://www.Peerbackers.com)

[www.Rockethub.com](http://www.Rockethub.com)

[www.Profounder.com](http://www.Profounder.com)

[www.Startupaddict.com](http://www.Startupaddict.com)

[www.Quirky.com](http://www.Quirky.com)

[www.Fundageek.com](http://www.Fundageek.com)

[www.Techmoola.com](http://www.Techmoola.com)

*"To play in the same league with big business, you have to have a strong TEAM – no inventor can go it alone. They have accountants, engineers, manufacturing and purchasing managers, marketers, lawyers, and a second string bench on their side. Learn how to identify and manage all of the key members of “your team” – the accountants, manufacturers, engineers, consultants, and sales force needed to put your invention on the shelf while you keep expenses under control!”*

# Key Points

- Again....your idea is not special. The obsession you employ to execute the idea through development and to market is what will make it special.
- The process will not be easy. There will be many times when you question why you even started in the first place! If you're one who expects instantaneous gratification, you may want to give developing a new product second thought!
- Perform careful feasibility studies from the outset to ensure your time, effort and investment will prove worthwhile.
- Take every precaution to protect your idea from the very moment you ideate it....start developing it.

# Key Points

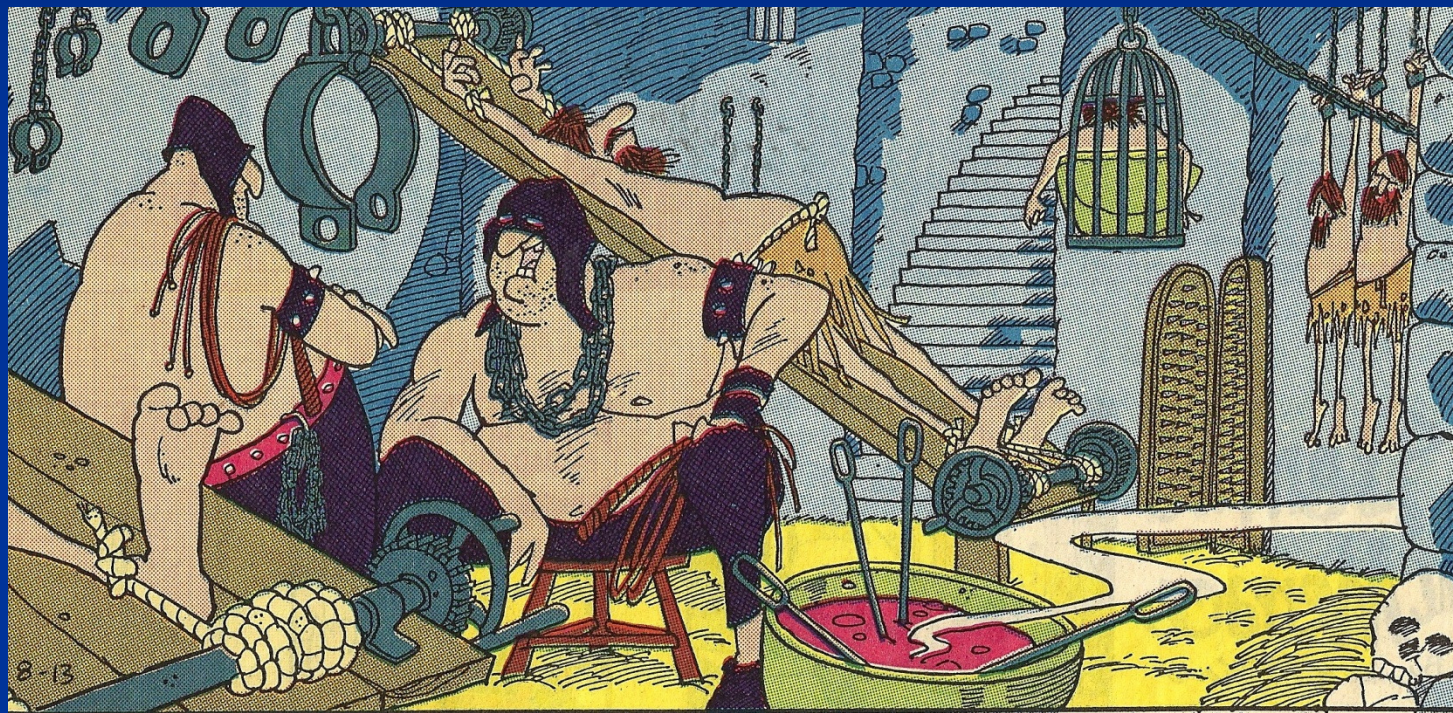
- Consult proper legal and financial professionals during every crucial step.
- Take your ego out of the equation! Very few people have all the requisite skills or knowledge sets to see a program through all of its necessary steps. Seek out those necessary and vital people and resources that will make your program successful. Be a good listener to those whose expertise could prove vital to your efforts!
- Do not think you can control everything. It will drive you insane! Given how many third parties will become involved over time, the best you can hope for is to manage things to the best of your ability.

# Key Points

- Continually review and modify your business plan. What it looks like today could easily change as the program progresses.
- Remain vigilant. Know what your competition is doing. Keep a finger on the pulse of your market at all times.
- Product development is like a chess game. Be in the present, but always anticipate several moves ahead!
- If your idea is indeed a good one, obsession, persistence and tenacity will make you and your endeavor successful!



# Good luck to all of you!!!!



"I'm tired, but it's a good kind of tired."