

# Brainstorming: The Secret of Innovation

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Aditya Mittal

Discovering Entrepreneurship, Stanford University

**Brainstorming:** I am writing this one before doing research on it since I already have enough to say about it myself, and I want to realize my understanding of brainstorming before losing it in the general pool of ideas.

## Initiating the Idea:

We all have thousands of life experiences, therefore, we all naturally have the ability to generate ideas, yet we often face a mental block of not being able to generate any new ideas. Why? For three main reasons:

- a. Sometimes, we have been a thoughtless mode for a while, and nothing striking is coming to mind.
- b. Sometimes, we are rejecting all the ideas that are coming to mind as invalid because we have experienced repeated failure.
- c. Sometimes, we are focused on a narrow conception and we have exhausted all the ideas emerging from our life experiences.

## Experiencing the Idea:

So how do we experience the new idea and let go off the mental block we face? We begin by determining which of the above 3 reasons is the cause of our mental block. Most often, this determination will cause new ideas to begin popping like foam bubbles. Solutions for each of the three reasons:

- a. Start reading something related, ideas will begin striking.
- b. Stop deciding if an idea will work or not, and start writing down all the ideas that come to mind even if they might not work. I am an author, and when people ask me how come I don't

Mind mapping involves the brainstorming techniques to form this list; often we learn these techniques in high school or creative writing classes:

- Bulleting, listing on a rolling tape, free writing, sitting down in a small group and bouncing ideas against each other, charting, building idea trees, filling out template forms, answering questionnaires that get one to think on a certain topic and so forth.

ever run out of ideas, I respond, "Ideas grow like weeds. Plant a few in your garden and they'll grow without bound." Once, you

have a long list of ideas, pick out the best ones.

- c. This is really good, welcome to my world, this is where you have to push a little bit harder because you've exhausted all the known literature and existing crap, and the most innovative ideas of the world are going to emerge. If you're really stuck and can't make that additional push, then try reading something completely unrelated. Slowly, its genes will start creeping into the existing weeds, creating new breeds of ideas. (This I believe is one of the greatest secrets of innovation. If you've got this one down, you have just a few more steps to go before you can join the list of inventors like Ben Franklin, Edison, Newton, Parker Brothers, or Steve Jobs)

## Implementing the Idea

And then the last few steps:

- Expand the idea and exhaust as many possibilities as you can within your head so you've a concept of the end
- Start implementing the idea, but be careful not to enforce your concept of the end of the idea, because then you will go beyond your imagination to your ability to do, if you enforce your concept of the end, you'll cause your idea to end with your imagination, and will learn nothing new
- Find more motivated people to join you and help evolve the implementation, listen to their ideas and let them expand the project, when they are stuck guide them out of the problem, and let the project continue as long as feasible
- The last thing you want to do is have the project turn out to only what you conceived, and if that happens, that means you either found a team that wasn't motivated and didn't do or try anything new and you did everything or you took too much control and didn't let your team do anything because you thought everything they tried to do was stupid because it differed from your first vision of the concept.
- At this point start acquiring legal and financial help, and manufacturing and marketing the project or idea.
- Move onto pursue new ideas, and continue to maintain ethical and legal responsibility towards your old actions

(For many people, it might be a stretch of the brain to see why this last step is also part of the brainstorming technique, but to me it really is still part of conceiving and developing great ideas, for the narrow minded only part b. of the experiencing the idea might be part of the brainstorming process)

## **FYI (For Your Information): Demystifying concepts**

### **Why did I digress from mind mapping when that was the assignment?**

I had more stuff to say on the topic, and of course there are hundreds of techniques for mind mapping, some of which I briefly listed. Hopefully, this is something we have all done many times in writing classes throughout high school and undergraduate coursework. Many techniques for mind mapping are already discussed, and they are all really great, and readily available. Here are some more nice ones if interested: <http://www.unc.edu/depts/wcweb/handouts/brainstorming.html>

### **What are some brainstorming techniques in engineering? Most of us are looking into starting corporations, not teaching creative writing classes.**

In engineering, especially software design, there are creative techniques called design methodologies. These design methodologies are used to do the creative thinking and keeping on track for many projects. There are many methods such as the waterfall method, Agile software development, Big Design Up Front, Chaos model, Iterative and incremental development, Iterfall development, Rapid application development, Software development process, Spiral model, System Development Methodology, and V-model. I am not going to attempt to discuss their details here.

### **Why such a broad view of brainstorming?**

Because brainstorming as a onetime process is much weaker than brainstorming as an ongoing process for a company or product to be successful. It allows for iterative consideration of the process as it evolves. Having meetings and keeping good meeting minutes is also a great brainstorming technique. It's actually a form of mind mapping that occurs over a much longer period of time and also captures the evolution of the mind over a longer period of time.