Idea generation

Conceptual blocks

Random stimulation

Visualizing the future

Subversive ideas from the past

Collective intelligence

Visualizing dreams

Conceptual blocks

Perceptual blocks

lack of perspective and the adoption of stereotypes

Emotional blocks

risk aversion and preference to criticize rather than generate ideas

Cultural blocks

absence of fantasy and humor and traditionalism

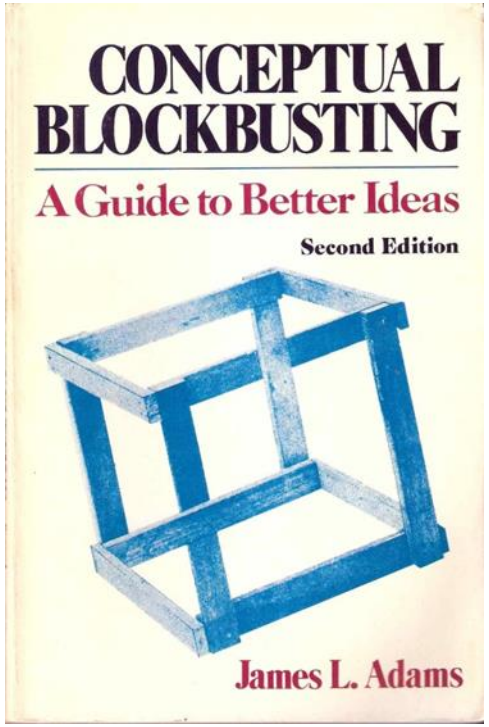
Environmental blocks

lack of cooperation and support for innovative ideas

Intellectual blocks

access to information by osmosis

James Adams, Conceptual Blockbusting



http://courses.washington.edu/art166sp/documents/Spring2012/readings/week_3/2_ConceptualBlockbusting.pdf

Random stimulation

Explore different scientific ideas

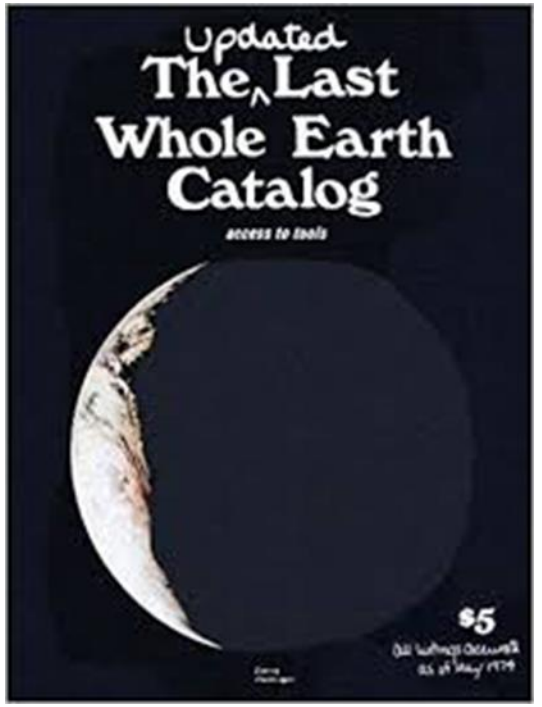
Persi Diaconis, https://arxiv.org/pdf/1306.3039.pdf

Explore“half-baked ideas”

I.J. Good, https://projecteuclid.org/download/pdf_1/euclid.ss/1032209661

Explore intersections of art, science, culture and technology

Stephen Wilson, http://userwww.sfsu.edu/infoarts/links/wilson.artlinks2.bio.html



Random stimulation

Explora Group

https://www.facebook.com/groups/183536175571026

Education

Food

Health

Mobility

Sports

Cities, Nature, Environment and Clean Tech

New Business Development

AR/VR/AI/IoT/Blockchain/ Quantum Computing/Bio Computing

Random stimulation

Scientific and professional societies

i.e., ACM, IEEE, VRARA, AWE

Universities

i.e., MIT, Cornell, Harvard, Princeton, Stanford, Johns Hopkins

Blogs, newsletters, Twitter

i.e., Azeem Azhar, Benedict Evans, Fred Wilson, Paul Graham, O'Reilly, Lenny Rachitsky, CB Insights, Stratechery

I&D in companies

i.e., Google, Amazon, Facebook, Microsoft

Random stimulation

Major global and national generalist media

NYT, Washington Post, Guardian, Economist, BBC, Quartz, Politico, Publico, DN, Expresso, El País, Globo, Le Monde

Main technological information sources

Technology Review, Fast Company, Wired, Tech Crunch, Venture Beat, Engadget, Gizmodo, The Information, Protocol, The Verge

Main business information sources

Financial Times, Wall Street Jornal, Fortune, Forbes, ECO, Jornal Negócios, Jornal Económico,

Main scientific information sources

Nature, Science, Scientific American, New Scientist

Random stimulation

“All of the above”

Medium

Visual Capitalist

Kickstarter

Indiegogo

Atlantic

New Yorker

Smithsonian

Open Culture

and several others (randomly)

Visualizing the future

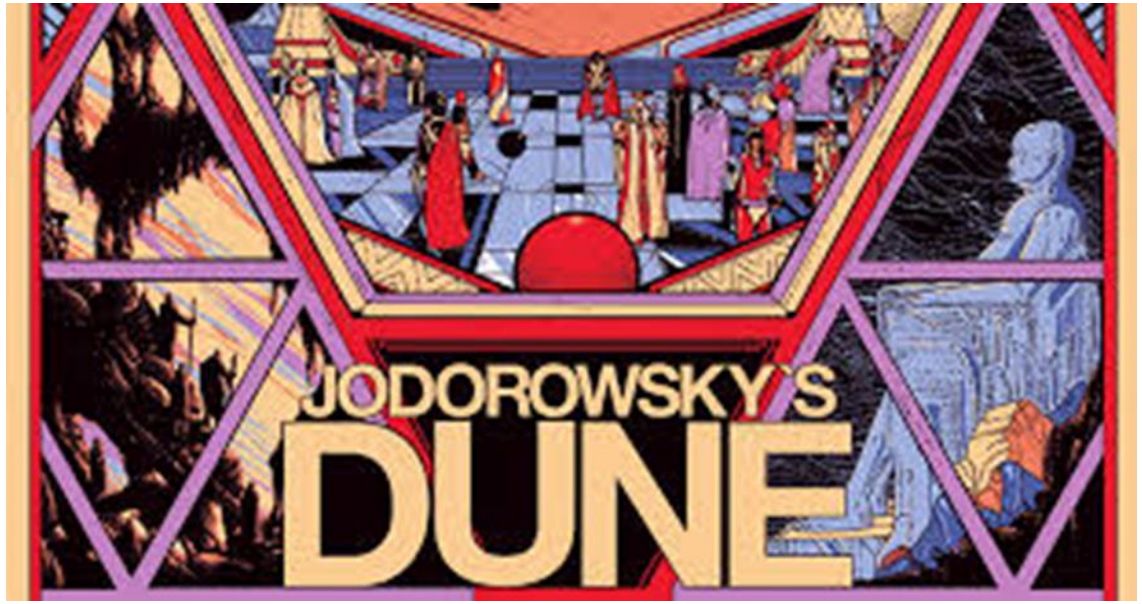
Sci-fi

http://www.filmsite.org/sci-fifilms.html

Visualizing the future

The Dune, Jodorowski

https://www.youtube.com/watch?v=jg4OCeSTL08



Traditional idea generation approaches

“Where is the Pain School”

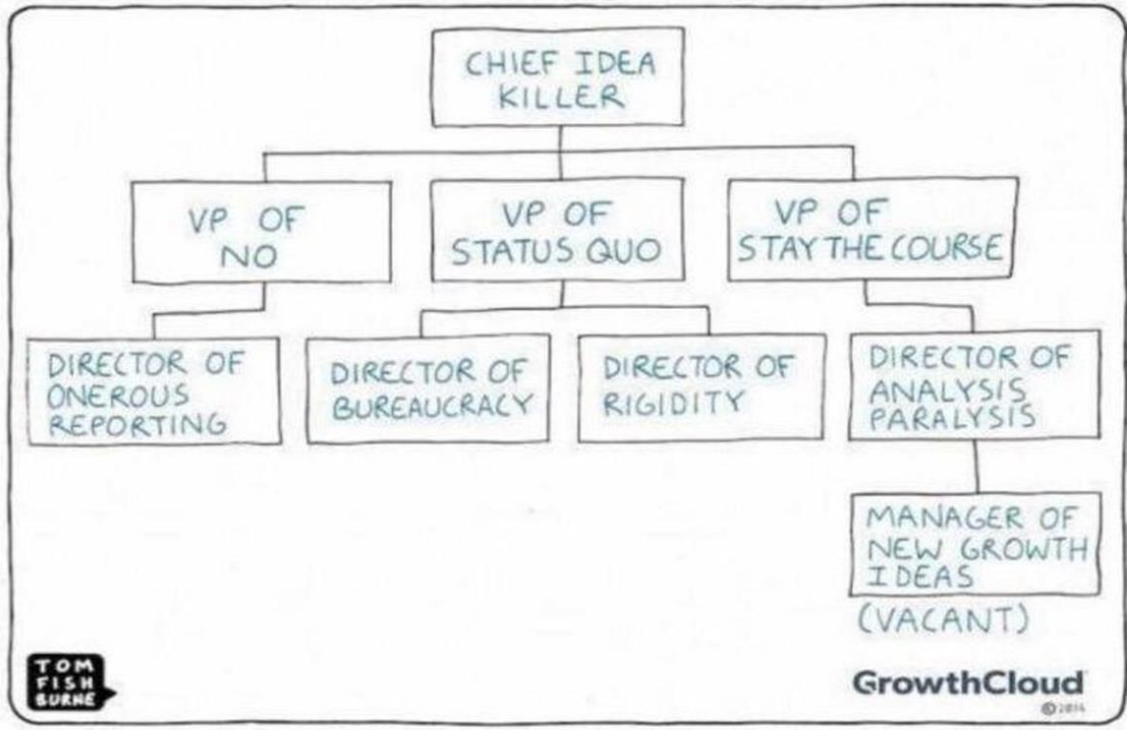
https://www.shopify.com/guides/what-to-sell/where-to-look-for-product-ideas

How to get Startup Ideas – Paul Graham

Peter Thiel’s CS183: Startup – Class 1 Notes Essay

When Ideas Have Sex

Startup Playbook



Subversive ideas from the past

Universal Leonardo

(http://www.universalleonardo.org/)

Anarchist Peter Kropotkin

(http://www.ephemerajournal.org/contribution/peter-kropotkin%E2%80%99s-anarchist-vision-organization)

Hippie Abbie Hoffman's Steal this Book

(https://archive.org/stream/pdfy-TNlDHryRIk4DXKAU/Steal%20This%20Book_djvu.txt)

Collective intelligence

Groups are excellent for playing roles, creating lists, solving problems, negotiating, voting, calendaring, playing and imagining

Fundamental concern: eliminating the power of dominant personalities

Conventional alternatives: “brainstorming” and Delphi method

Collective intelligence

Collective intelligence

https://youtu.be/Xgsp_xm08W8

Open Source” (“hardware” e “software”)

https://opensource.org/

https://ohwr.org/

“Crowdsourcing”

http://www.visualcapitalist.com/gig-economy-explained/

Visualizing dreams

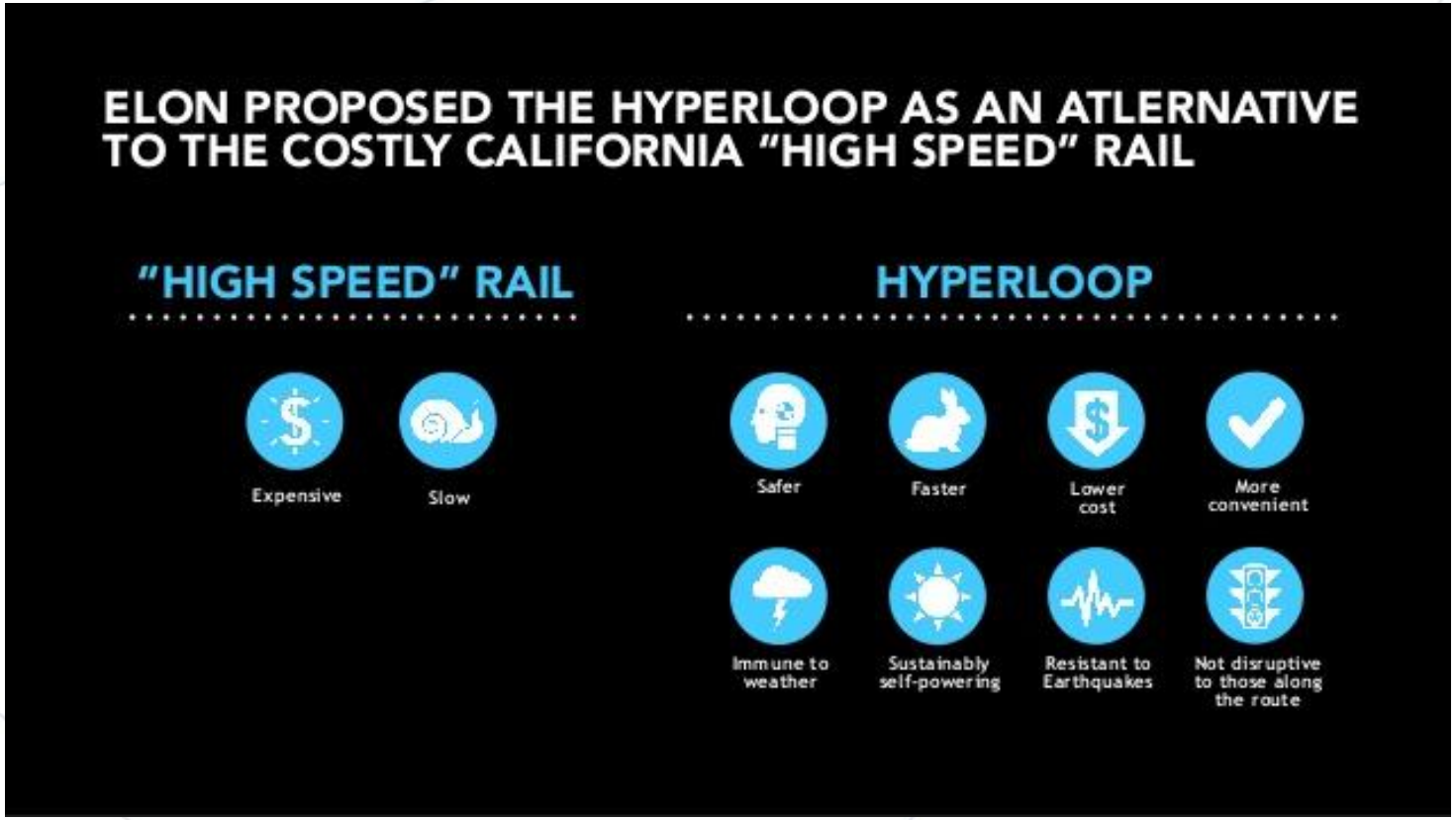
https://www.youtube.com/watch?v=z8iEogscUl8

Initial presentation

Ideas should be presented concisely and persuasively

The reaction to the idea is a criterion. If we present the idea to five different people and do not excite any, we should generally review the concept

Interact with your target audience from the start


ELON PROPOSED THE HYPERLOOP AS AN ATLERNATIVE TO THE COSTLY CALIFORNIA "HIGH SPEED" RAIL
"HIGH SPEED" RAIL
Expensive
Slow
HYPERLOOP
Safer
Faster
Lower cost
More convenient
Immune to weather
Sustainably self-powering
Resistant to Earthquakes
Not disruptive to those along the route

Three-dimensional analysis

What we can do

We can suppress the possible lack of skills by creating a support ecosystem, and use outsourcing services type fiverr.com, freelance.com ou https://www.mturk.com/

What we want to do

The path of the idea to the prototype and, later, product, is a challenge with difficulties and uncertainties. Perseverance and passion are fundamental

What we are paid to do

There must be someone willing to pay for the product or service

Idea selection

“When you have an idea for a product, ask yourself: who will need it right away? Who needs so much will use even when it comes to a version made by two people of a "startup" who have never heard of. If you can't answer this, it's probably a bad idea."

Paul Graham

http://paulgraham.com/

“Timing”

The worst that can happen to us is to launch a product in a market that is in decline, involving an outdated technology

On the other hand, we must also take into account that the most difficult solutions to implement are usually neglected. This could be a business opportunity.

Gartner annually publishes its Hype Cycle, which helps to situate the state of maturity of the technology area in which we are working in relation to the market

"99% of the time we should ignore our competitors. Especially when they make a lot of money or are talked about a lot in the press. Don't worry about the competition unless you're already producing and shipping products."

Sam Altman

http://playbook.samaltman.com/

Analysis of competitors

Generic Google www.google.com

Tech Crunch www.techcrunch.com

Companies/products receiving funding

Kickstarter/Indiegogo www.kickstarter.com, www.indiegogo.com

Crunch Base www.crunchbase.com

Angel List https://angel.co/

Existing intellectual property Google Scholar (“prior art”) https://scholar.google.pt/

Google Patents https://patents.google.com/

Preliminary feasibility analysis

Using “back-of-the-envelope calculations"*: estimates and not accurate values

What is the potential market size of this product/how many people in the world have this problem?

How much will people be willing to pay for this product?

What are the main materials ("bill of materials") of the product and how much do they cost? What is the final cost of the product? What are the potential technological challenges? Does the idea require any technology that is still immature or non-existent? Are there all the necessary materials today?

*For an example of applying “back-of-the-envelope calculations" see the recommendations for evaluating "design" projects from a Google expert in: http://highscalability.com/blog/2011/1/26/google-pro-tip-use-back-of-the-envelope-calculations-to-choo.html.

“Business to Consumer” (B2C)

Minimum initial investment
Kickstarter/Indiegogo

Accelerators (https://www.f6s.com/)

Use existing Amazon Launchpad infrastructure
(https://www.amazon.com/launchpad/startups/signup) or Alibaba Platform
(https://www.benzinga.com/news/17/07/9755266/alibaba-launches-platform-to-link-us-businesses-with-500-million-chinese-consumer)

“Business to Business “(B2B)

Clients

Accelerators (https://www.f6s.com/)

Investment (“angels”, “VCs”)

See “market maps” at https://www.cbinsights.com/research/industry-market-map-landscape/

Statistics on the size of markets in https://www.statista.com/

Infographics on technological areas em http://visualcapitalist.com