

1. Choose a Domain

You could categorize domains in many different ways.

- 1. Sector/Industry Classification
- 2. NAICS

3. A network generated from wikipedia, google scholar, patent webs, or a site that you create yourself which lists problems and who is working on them.

Choose the domain using machine learning. The ideal outcome variable is profit, but you'd just have to get as close as you could. Some ideas:

- 1. Average operating margin
- 2. Porter's 5 forces, measured by text mining SEC filings.
- 3. New product introduction and success rates.

2. Randomize

Use combinatorics to randomly combine elements within the domain, near to the domain, or sometimes from unrelated domains.

Structure the idea in a communicable way. A human should be able to understand it.

3. Evaluate

Evaluate the ideas using both automated statistical processes and human judgement. Eventually, you may be able to keep it fully automated.

Two kinds of evaluation are needed.

- 1. Feasibility
- 2. Idea quality. This is composed of novelty, utility, and possibly a myriad of other variables.

Go back to a step and randomize to generate more ideas if necessary until you have several worth working on.

4. Prototype

Send the idea to a human or a machine to create a prototype.

Go back to a step and evaluate now that the new prototype is available.

5. Monetize

Either produce the new product yourself or sell the intellectual property.