Book The Art of Innovation

Lessons in Creativity from IDEO, America's Leading Design Firm

Tom Kelley and Jonathan Littman
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Recommendation

With his tour through the inner workings of design firm and idea factory IDEO, Tom Kelley achieves the nearly impossible: He presents creative and innovative observations about creativity and innovation. Toss aside ordinary innovation books and tear into this beautifully constructed showpiece. Kelley distills the often amorphous concepts of brainstorming and teamwork into directives with honest-to-goodness real-life applications. His notions about prototyping are fresh, insightful and practical. His bigger-picture ruminations illustrate not only how organizations should work at innovation, but also how easily dumb bureaucracy can smash creative initiative. If the book has one failing it is that reading it can be a bit like watching a home movie of a friend's children: Your role is clearly to join in the adulation. That aside, *BooksInShort* recommends this treatise as one of the few can't-miss books in the creativity genre.

Take-Aways

- The fundamentals of innovation are prototyping, brainstorming and observing.
- In fact, "prototyping is the shorthand of innovation."
- Brainstorming, like any other activity, becomes more effective with regular practice.
- Off-site brainstorming sessions are fine, but limited. Brainstorming should be a regular part of everyday work.
- Insisting that the boss speak first is one sure way to kill a brainstorming session.
- Focus groups and market research are overvalued. Careful observation of consumers will tell you much more.
- A product that protects the consumer from error and mishap is inherently valuable.
- Innovation is no longer the domain of the lone genius; today, it is born of teamwork.
- There is no innovation without the risk of failure.
- Foster innovation by rewarding rule-breakers and risk-takers, even when they fail.

Summary

Outsourcing Innovation

Why do companies outsource their creative and design functions? Experience points to four main reasons:

1. **"Capacity"** – The number of ideas that they require is more than they can afford to generate internally.
2. **"Speed"** – They could do it themselves, but they need it done faster.
3. **"Expertise"** – The level of expertise in a certain area is not high enough and therefore, need outside help.
4. **"Innovation"** – They want partners who can think outside the box.

   "Today companies have an almost insatiable thirst for knowledge, expertise, methodologies, and work practices around innovation."

In recent years, innovation has become the primary factor. During that shift, IDEO, the heralded innovation company, has refined its creative methodology, which follows these steps:

- **Understanding** – "You must understand the market, the technology, the client and the perceived constraints affecting the problem." While the constraints may be challenged later in the process, beginning with a firm understanding is important.
- **Observation** – Watch the people who are affected and study their behavior toward the issue at hand. See where their needs are going unmet.
- **Visualization** – At times, visualizing is purely a mental exercise, although constructing physical models and prototypes can be useful as well.
- **Evaluation** – Alter the prototype frequently by implementing, testing and assessing a series of improvements.
- **Implementation** – Creative efforts aren't enough. You must work to bring the product to market. This is the "longest and most technically challenging" phase, but also the one that brings the greatest rewards.

The Limitations of Market Research

To innovate, you have to learn to rely on your own instincts, rather than market research. Ask your dinner guests if they like your cooking and they're likely to tell you it's fine, if only to be polite.

   "Innovation isn't about perfection. You've got to shank a few before your swing smooths out."

The same can be true of your product. So get used to the idea that you are going to have to evaluate many of your ideas according to your own convictions. Similarly, focus groups can miss the mark. If you want to really know how to design a better product, go to the people who actually use it – the consumers.

The Perfect Brainstorm

Most organizations use brainstorming, but often they don't do it as well as they should. Many companies brainstorm less than once a month. Your company should hold brainstorming sessions weekly, if not daily, limiting the sessions to about 60 minutes, because after that the ideas get flat and repetitive.

   "History teaches that innovation did not come about by central planning. If it did, Silicon Valley would be nearer to Moscow than to San Francisco."

The seven secrets to better brainstorming are:

1. **"Sharpen the focus"** – Define the problem as clearly and succinctly as possible, and don't let people get sidetracked. Remember, the first step to solving a problem is to identify it accurately.
2. Be **"playful"** – "Encourage wild ideas." Steer away from debating the merits of an idea at the beginning, since this can drain energy.
3. **"Number your ideas"** – This gives you a benchmark on how many ideas you want to try to reach, and it provides you with a

way of referring back to ideas without losing your place.

4. **"Build and jump"** – Building means restating an earlier concept, while presenting the next step that must be taken to perfect the idea. Jumping means switching directions entirely and trying a different approach. The facilitator has the job of using these techniques when the momentum starts to flag.
5. **"The space remembers"** – Cover every available space with paper, so you as the leader can jot down the group's ideas around the entire room. This gives people the chance to return to ideas by using their spatial memory.
6. **"Stretch your mental muscles"** – If a group hasn't worked together before, or if the members seem distracted, start with a warm-up exercise. A facilitator will be able to help come up with some engaging options.
7. **"Get physical"** – The best brainstormers transport their ideas into the physical realm, so you may want to bring in building materials, such as blocks and that old standby, duct tape.

The Imperfect Brainstorm

Now that you know some of the do's, here are some of the don'ts. You can bury a brainstorming session by making these missteps:

- **"The boss gets to speak first"** – Send him or her to buy doughnuts.
- **"Everyone gets a turn**" – Not all brainstormers are created equal.
- **"Experts only please"** – Often, outsiders have the best ideas because they have a fresh perspective.
- **"Do it off-site"** – Getting away from everything so you can brainstorm is fine, but if you limit brainstorming only to such occasions, you are undermining your own efforts to create an atmosphere of regular innovation.
- **"No silly stuff"** – "Come on everybody, let's get serious." And check your creativity at the door! Don't be dull; use "flights of fancy" to spur inventiveness.
- **"Write down everything"** – As a participant, you're supposed to be engaging the creative part of your brain, not the mundane! Draw random doodles if you want, but don't take detailed, personal notes.

Teamwork and Innovation

Today, great teams achieve great projects. Be sure your team has a clear goal and a realistic deadline.

> "Many businesspeople...overlook the possibility that brainstorming can be a skill, an art, more like playing the piano than tying your shoes."

Eight personality types will play a key role on your company's teams:

1. **"The visionary"** – Often a wise veteran, the visionary is the first one to discover the next trend. This is the person who is able to rise above the day-to-day fray.
2. **"The troubleshooter"** – This is the team member who gets directly to the point. The troubleshooter does not enter into office politics, and you may find that they occasionally irritate other members of the team. However, his or her straight-talking contribution is invaluable.
3. **"The iconoclast"** – This is the staff member who seems to do everything in a contrarian fashion. The iconoclast is usually right and often operates a bit apart from other team members.
4. **"The pulsetaker"** – This is the glue that holds the group together: The person who makes personal connections with others.
5. **"The craftsman"** – This artisan takes ideas and finds a way to apply them to the real world.
6. **"The technologist"** – You need a resident technophile. In this day and age, you have to have one. The nerd often seeks the deeper relationship between things.
7. **"The entrepreneur"** – This businessperson takes your ideas and turns them into a practical business venture.
8. **"The cross-dresser"** – This is someone with experience in multiple disciplines. The cross-dresser is highly motivated and brimming with diverse ideas.

Prototyping

"Prototyping is the shorthand of innovation," the essence of problem solving. Your company can create a prototype for any new product or service that you offer. The important thing is to get moving.

"Chance offers insights you didn't anticipate. It's a well accepted truth that inventions and discoveries often result from random accidents or experiments that went awry."

When you start building your prototype, you begin fulfilling a part of your goal. As teams construct and revise prototypes, the work often inspires breakthroughs and encourages incremental improvement to the original idea.

"Quick prototyping is about acting before you've got the answers, about taking chances, stumbling a little, but then making it right." You cannot innovate without risk. It is simply part of the process. By failing often, you can succeed sooner – embrace that perspective so you can innovate.

Cross-Pollination

One of the central assets of any innovation effort is the ability to cross-pollinate, or to apply the knowledge from one field to another situation.

> "Barriers often stump even the best innovators. They wall in your imagination like a prison yard."

To make cross-pollination an integral part of your workplace, try these suggestions:

- **Consume information avidly** – Browse the Internet in your spare time and subscribe to a variety of publications.
- **Sit in the director's chair** – Watch people at work and see how they carry out their everyday tasks.
- **Open your doors** – Invite new thinkers into your midst, perhaps from other departments, to look at your prototypes and share ideas.
- **Encourage specialists** – If they have expertise in a particular field, such as environmentalism, encourage them to apply that knowledge.

Creating Great Products

How do you design a great product? Keep these steps in mind:

- **"Make a great entrance"** – Your product needs to have an immediate appeal to the consumer. Customers should feel at ease when using it.
- **"Make metaphors"** – Try to think of metaphors to describe your new products. This can guide your design and product objectives.
- **"Think briefcase"** – Devices that cross over between the workplace and home will always resonate in the marketplace.
- **"Color inspires"** – Think of the impact that the iMac made on the marketplace. Your company can use color boldly to announce a new product line.
- **"Backstage pass"** – You can win customers' loyalty by giving them a peek behind the scenes. Keep them posted on your products and communicate your progress to them.
- **"One click is better than two"** – Any time you can eliminate a step, you are giving the customer valuable convenience.
- **"Goof-proof"** – Think of the value of auto-save functions and "undo" commands in word processing. A product that protects the consumer from error and mishap is a valuable commodity.
- **"First, do no harm"** – Be thoughtful. Make your product easy to use.
- **"Checklist"** – You should make a checklist of the essential features and benefits your product must have before you begin working on your design. Check this list periodically to make sure that you haven't left anything out.
- **"Great extras"** – Sometimes great accessories can carry a product. Excellent add-ons add value.

Take Creative Chances

With the right approach, any organization can become more innovative. But, first, you need to re-energize your creative culture.

> "The next time you're knee deep in a challenging project, don't forget the true spirit of innovation. That's right. Have some serious fun."

Stencil brainstorming rules on your conference room walls. Print up special T-shirts for team members. Perhaps most importantly, go out of your way to publicly acknowledge a risk-taker or rule-breaker. Make sure everyone knows that people who act positively in their roles also will be rewarded, even if they occasionally fail. Learning to innovate isn't about being perfect; it's about being creative and having fun.

About the Authors

Tom Kelley is the general manager of IDEO, a design consultancy specializing in product development and innovation.
Jonathan Littman wrote *The Fugitive Game* and *The Watchman*, and contributes to *Red Herring* magazine.