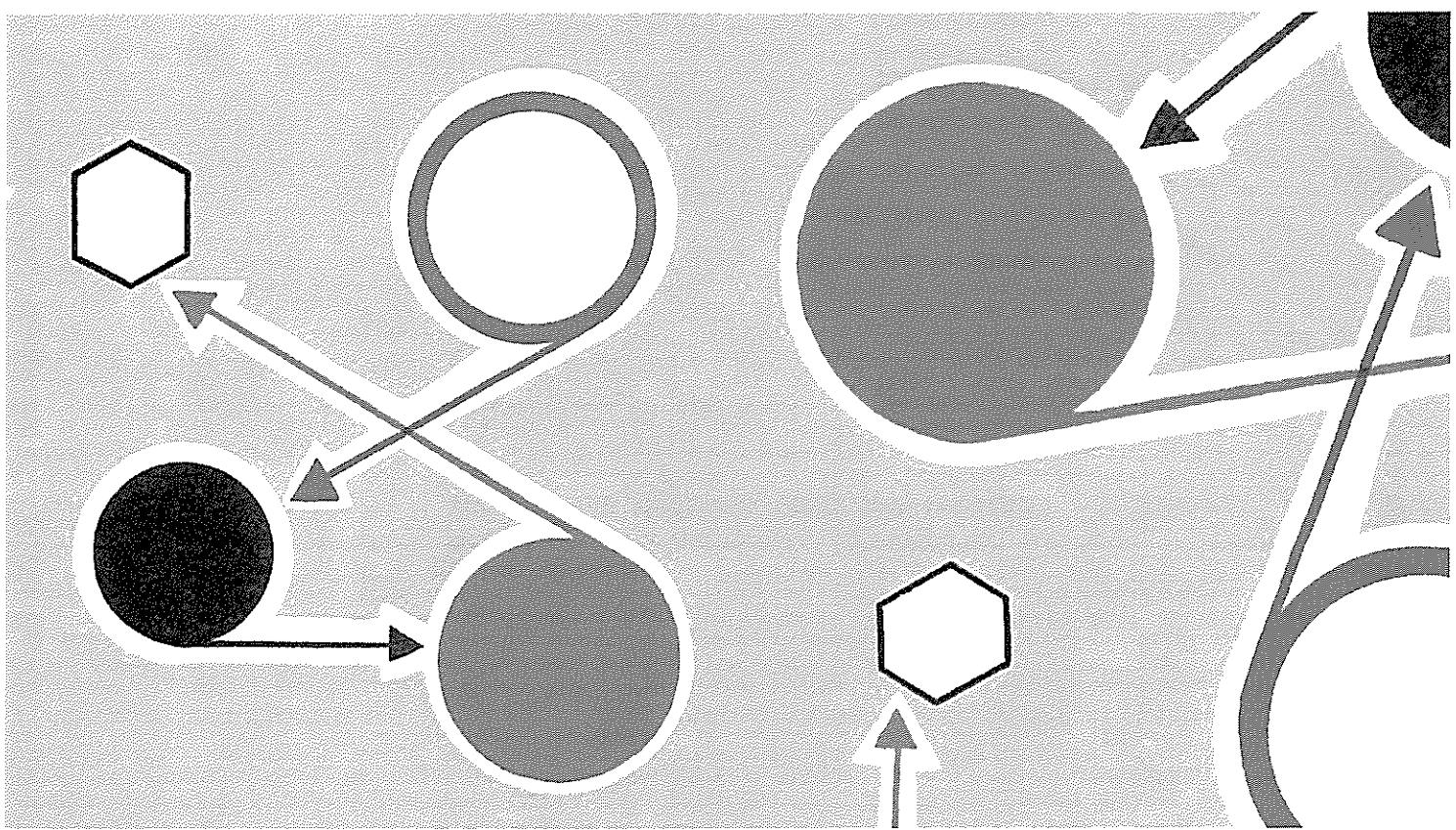


To Come Up with a Good Idea, Start by Imagining the Worst Idea Possible

by Ayse Birsel

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There are many creative tools a designer uses to think differently, but none is more counter-intuitive than “wrong thinking,” also called reverse thinking. Wrong thinking is when you intentionally think of the worst idea possible – the exact opposite of the accepted or logical solution, ideas that can get you laughed at or even fired – and work back from those to find new ways of solving old problems.

For example, one of the most important discoveries in the sequencing of the human genome came from Fred Sanger who reversed his process to achieve a breakthrough. As explained by Siddharta Mukerjee in his book *The Gene*, Sanger “turned his own strategy upside down and tried to *build* DNA, rather than break it down.” His wrong thinking led to his second Nobel Prize in chemistry in 1980 for contributions in genetic sequencing.

The great Argentinian chef Francois Mallmann, featured on Netflix’s documentary series *Chef’s Table*, left the comfort of his restaurants to cook in the wild in Patagonia, with no kitchen or sous chefs, traveling with a group of young novices who have little or no experience. He calls it “gypsy chefs,” a team that roams. His wrong thinking about what a chef does and how he does it has allowed Mallmann to create incredibly unique culinary experiences that could never happen in a traditional restaurant setting.

During my “Design the Work You Love” workshop, Mickey McManus, AutoDesk research fellow and Chairman of Maya Design, shared an experiment in reverse thinking that captured my imagination. McManus essentially switched roles with his intern Lisa Rotzinger – Lisa became the boss, and Mickey an “exit-level intern.” As Mickey explained it, “Our role as a leader is to be the superhero, fly in and save the day. But the best thing you can do is serve other people. I thought, what if my role is that of the sidekick, getting obstacles out of their way and letting the superhero learn to fly.” When Lisa started at Autodesk, McManus gave her a sticky note with topics for her to research: Internet of Things (IoT), Machine Learning, and Generative Design. He told her that her task is to “discover things I don’t know” and left her to be her own boss for two weeks while he traveled. When he returned, her findings turned out to be much more provocative than either had expected. They applied her discoveries to an Autodesk research project called Primordial, and at McManus’s urging, it was Lisa who presented the project to 400 top executives and clients.

McManus’s reframing of leadership – the leader as the sidekick, the intern as the superhero – embodies three powerful principles that enable innovation and discovery.

1. Be the beginner. A favorite koan from the zen master Shunryu Suzuki says, “In the beginner’s mind there are many possibilities, but in the expert’s there are few.” Being the beginner shifts our perspective and, as the koan states, opens up our mind to possibilities. As a beginner, you listen

more. You're more inquisitive and interested in learning from everyone, including people who are younger or have less experience. We give ourselves permission to learn constantly. As Mickey found out, this humility pays off.

Lisa's provocative insights, enabled by her newcomer's perspective, opened up McManus's mind to new ideas. He was inspired. McManus calls his new position the "exit-level intern," rather than an entry-level one, someone who is there to learn like a novice even though they might have the most experience. To recognize how innovative this approach is, just imagine telling your intern or most junior employee that come Monday, you are their intern.

2. Grant agency. Listening to people, rather than telling them what you think they need to do, gives others agency to investigate, apply their ideas, draw their own conclusions. What are the obstacles standing in the way of your team? Having a bird's eye view (or in this case, a sidekick's view) gives you the advantage of seeing roadblocks or challenges, while putting team members in the superhero role makes them agents to solve their own problems.

Dara Dotz is removing obstacles to rapid recovery in humanitarian disasters with her NGO, Field Ready. Rather than relying on slow, expensive supply chains to import disaster relief, Field Ready empowers people in disaster-struck areas with the technology and expertise to make life-saving and life-sustaining supplies onsite. To help disaster victims realize their own recovery, Field Ready teams begin by listening. Suddenly the victim is the superhero and the designers and engineers are the sidekick, collaborating together to find the best solutions. Empowering your team with agency allows everyone to offer solutions and innovate, just as McManus did with Lisa by listening to her findings, encouraging her involvement in the work and, eventually, giving her the spotlight to do the final presentation.

3. Do away with hierarchy. The superhero-sidekick relationship Mickey set up with Lisa eliminated expected hierarchy. He had her sit next to the CEO, and enabled her to wander around and ask questions to everyone, including the CEO and the CTO. He asked *her* to teach *him* stuff, and had her give the big presentation at the end of the project. Mickey said, "Lisa nailed the presentation – 23-years-old, and she gave a presentation to 400 top executives, including our most important customers, that was riveting to watch." When we allow those at the lowest rung of the career ladder to take on the superhero role, and step back ourselves to learn from them, the best ideas can rise to the top.

Lisa stayed for an extra semester of internship at Autodesk before going back to school. She has since graduated and is joining Autodesk full-time as a strategist. Mickey continues to be a superhero who acts as the sidekick, acknowledging what he doesn't know and always learning along the way. Remember, the key to wrong thinking is coming up with a seemingly bad idea to challenge the status quo, pushing ourselves to imagine new and disruptive ideas, beyond our own preconceptions. When we give ourselves permission to have bad ideas, we often come up with the best ones.

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