

# The Art of Subtraction:

## DOING MORE WITH LESS

If you focus on what to ignore, what to leave out and what *not* to do, decisions become exponentially simpler.

By Matthew May

WHILE MANY HAVE TRIED TO 'THINK DIFFERENT', the grammatically-questionable command put forth in **Apple's** tagline is far easier said than done. We often only get to new ways of thinking after we have tried and repeatedly failed to solve a problem through familiar means. But increasingly, the intrepid thinkers among us recognize the need to explore alternative pathways to creative solutions.

Several years ago I was fortunate enough to have a breakthrough that has influenced my thinking in countless ways. At the time, I was working as an innovation coach to senior leaders at **Toyota**. Normally, I have more ideas than I know what to do with; but on one particularly difficult project, I ran out of them. I had been hired to help Toyota develop new strategies for its U.S. business, but I was struggling because Eastern and Western ways of thinking are so often at odds with each other. For the first time in my career, I found myself at a complete standstill.

I must not have done a very good job of hiding how useless I was feeling, because a 2,500-year-old snippet of Chinese philosophy found its way to me, anonymously, via a handwritten note on a Post-it, stuck to my work space: "To attain knowledge, add things every day. To attain wisdom, subtract things every day," it said, capsulizing teachings of **Lao-Tzu**. "Profit comes from what is there, usefulness from what is not there."

Panicking, my first thought was, "Someone wants me gone!" But as I digested these powerful words, I realized that I had been

looking at my problem in the wrong way. As is natural and intuitive, I had been looking at *what to do*, rather than what *not* to do. As soon as I shifted my perspective, I was able to complete the project successfully.

Even though the idea of subtracting things was thousands of years old, it felt radical to me. My breakthrough opened up a whole new way of looking at the world, and prompted me to explore 'the art of subtraction' further.

I quickly discovered a wonderful essay by best-selling management author **Jim Collins**, titled "Best New Year's Resolution: A Stop-Doing List", in which he confirmed the ancient philosophy: "A great piece of art is composed not just of what is in the final piece, but equally important, what is not. It is the discipline to discard what does not fit that distinguishes a truly exceptional artist and marks the ideal piece of work—be it a symphony, a novel, a painting, a company or, most important of all, a life."

Seeking scientific 'proof' of this concept, I discovered literature demonstrating that subtraction uses circuitry that lights up a brain scan very differently than addition does. In fact, accident victims suffering brain injuries often lose their ability to both add and subtract, retaining only one of the two. Subtraction is literally a different way of thinking.

I began to scour the planet for stories and cases in which breakthroughs came at the hands of a subtractive approach, and as I did this, some distinct patterns emerged. Over the course of

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several years, after collecting thousands of these ideas, I arrived at a powerful heuristic—a set of design principles that I hope will help guide you to breakthrough ideas of your own.

1. What *isn't* there can often trump what is;
2. The simplest rules create the most effective experience; and
3. Limiting information engages the imagination.

Let's examine each principle in turn.

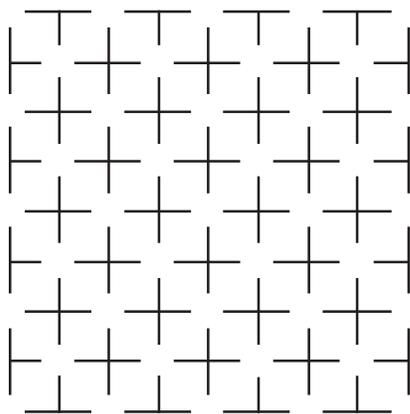
### Principle 1: What Isn't There Can Often Trump What Is

I love optical illusions, and the graphic below illustrates why: the white circles that you see in the rather incomplete grid *don't actually exist* (!) Neither do the white diagonal lines you see connecting them. Yet what isn't really there is the most interesting part of the image.

The reason it's so interesting isn't just that you see the white circles and diagonals, it's that *everyone* does. And even if I tell you to focus only on the drawn lines and completely ignore the space between them, your brain will override the order. So will everyone else's.

Harvard psychologist **Daniel Gilbert** refers to this as a mistake. "The errors that optical illusions induce in our perceptions are lawful, regular, and systematic," he says in his book *Stumbling on Happiness*. "They are not dumb mistakes but 'smart mistakes' — mistakes that allow those who understand them to glimpse the elegant design and inner workings of the visual system."

It appears that I created the effect simply by removing a section of line segment on alternating corners of a larger grid composed of smaller squares. That's not quite accurate; it was a bit more involved than that. I experimented with the spacing of gaps to figure out the minimum amount of solid line needed to



facilitate the production of an altogether new experience that you — or, more precisely, your brain — actually created.

You have just experienced the first law of subtraction: *What isn't there can often trump what is*. If you know what to do and how to do it, you can use this approach to achieve success in the real world. You can cut through the noise and confusion of a chaotic world so that even the most complex things make more sense. You can draw and direct attention to what matters most so that your products and services have more meaning for others. You can focus energy and make your strategy more effective. You can generate greater visual and verbal impact to make your message stick and stay.

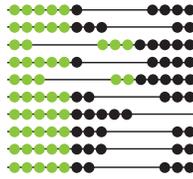
**FedEx** embraced this principle to dramatically change its image and create one of the most indelible logos ever designed — breathing new life into an already-strong brand and simultaneously signaling to the world that the company was 'going places'. While the logo is familiar to all, many readers will have never noticed the hidden white arrow that appears in the white space between the 'e' and 'x':



This powerful logo is now legendary: nearly every design school professor and graphic designer with a blog has at some point focused on it to discuss the use of negative space. I shared my interest in subtraction with **Lindon Leader**, who created the logo in 1994 while working as a senior design director in the San Francisco office of **Landor Associates**, a global brand consultancy known for executing strategy through design. It was never about the arrow, according to Lindon: it was the fact that it wasn't really there. A handful of other logo ideas contained arrows, but none of them were hidden.

"There's nothing really compelling about an arrow," Lindon has said. "It's overused and rather mundane. But I thought we could build a story around it. The arrow could connote forward direction, speed and precision, and if it remained hidden, there might be an element of surprise—that aha! moment. I didn't overlay it, didn't mention it; and most of our own designers didn't even see it!"

When the Landor team presented its ideas at FedEx headquarters in Memphis on April 23, 1994, the hidden arrow mark was one of five presented to a fairly large group of senior executives. "We made no mention of the arrow. Our goal was to see if it got discovered. Amazingly, then-CEO **Fred Smith** was the only person to see it right away. Once everyone saw it, they got the punch line, and they loved it."



## Principle 2: The Simplest Rules Create the Most Effective Experience

Sometimes, effective order and engaging experiences can be achieved with the simplest of rules. Take the case of **Netflix**, which disrupted the bricks-and-mortar video rental business several years ago. As **Daniel Pink** pointed out in a column for *The Telegraph*, the vacation policy employed by Netflix is “audaciously simple and simply audacious: salaried employees can take as much time off as they’d like, whenever they want to take it. Nobody — not employees themselves, not managers — tracks vacation days. In other words, Netflix’s holiday policy is to have no policy at all.”

It hasn’t always been that way. In 2004, Netflix treated holidays the old-fashioned way: everyone got a set number of days each year, used them, or worked the system to get paid for time not taken. “But eventually, some employees recognized that this arrangement was at odds with how they really did their jobs,” says Pink. “After all, they were responding to emails on weekends and solving problems online at home at night. Since Netflix wasn’t tracking how many hours people were logging each work day, these employees wondered, why should it track how many holidays they were taking? “Fair point,” said management. So the company scrapped its formal plan.

“Rules, policies and regulations are innovation killers. People do their best work when they’re unencumbered,” writes Pink, quoting **Steve Swasey**, Netflix’s vice president of corporate communication. “If you’re spending a lot of time accounting for the time you’re spending, that’s time spent *not* innovating.”

In his book *Practically Radical*, **William Taylor** makes the point that, “we tend to make things more complicated than they need to be. If we want to design something impressive, we impose detailed rules, assign endless tasks, and engage a bureaucracy to monitor progress. That’s just the way the world works, right? Wrong. A few simple design principles, well crafted and deeply felt, can unleash remarkable waves of creativity.”

Taylor cites the case of the three-week-long **Edinburgh Festival Fringe**, the largest arts gathering in the world, offering nearly 42,000 performances of 2,542 shows and featuring 21,192 performers. “It’s a compelling case of how unchecked human energy, shaped by a few simple rules, can unleash truly amazing results,” says Taylor. “Here’s the thing: no one is in charge of the Fringe. The festival’s small staff doesn’t decide who performs or where, and doesn’t influence the overall mix of performances. There is no ‘artistic guru’, no guiding body of any kind. Yet an extraordinary cluster of performers turns up every year to move the mix in a new direction.”

What makes the Fringe work is participation and creativity, blended with a spirit of competition. The Fringe is self-organizing,

governed by the self-interest of the performers, the venues, the audience, and the press. Anyone is eligible to perform; all you have to do is to persuade one of the 250-plus venues to host your show. Then you persuade visitors to attend your show instead of the hundreds of others taking place at the same time and persuade critics to review your show. That’s it. In other words, it’s the participants — artists and audience — who are ‘in charge’.

The job of Fringe staff is to do the minimum necessary to make the event happen. Artistic director **Paul Gudgin** puts it this way: “The *worst* thing we could do is to decide what kind of festival Edinburgh should be, to engage in what I call ‘programming through the back door’. My most important responsibility is to make sure that the people who decide what the festival should be are the artists and the audience. What we have to do at all times is to make as few rules as possible.”

Perhaps Lao-Tzu was on to something when he wrote:

*Of the best leaders  
When the task is accomplished  
The people will remark  
We have done it ourselves.*

## Principle 3: Limiting Information Engages the Imagination

It is nearly impossible to make it through a typical day without exchanging ideas. Whether deciding on something as simple as a restaurant for a long overdue night out, or as complicated as the design of a new product, we are forever involved in sculpting and ‘selling’ our creative thoughts.

Conventional wisdom says that to be successful, an idea must be concrete, complete and certain. But what if that’s wrong? What if the most impactful, imaginative and virally engaging ideas are none of those things? For the past few years I’ve been studying how visual artists — graphic designers, comic illustrators, film directors and game designers — seduce and captivate their respective audiences, and actually engage them in co-creation. I believe they can teach us something about how to magnify the impact of our business ideas.

I recently attended a two-day seminar called, “Making Comics.” I’m not a cartoonist, but neither was most of the class: there were teachers, engineers, architects, consultants, technologists, musicians, and one 14-year-old aspiring graphic novelist. However, we did have a few things in common: a desire to tell better stories, a love of imagery and visual thinking, and a fascination with the imagination.

“Imagination is the mortar that holds comics together,” said our instructor, **Scott McCloud**, who is a staple at **Comic-Con** — the annual event celebrating comics and graphic novels that

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attracts some 150,000 people. “The true art is invisible.” He should know, as his seminal *Understanding Comics: The Invisible Art* remains the definitive treatise on the theory and art of comics.

In 2008, McCloud created a comic book for **Google** as a guide to its then-new open source browser, Google Chrome. The comic became an Internet phenomenon when it shipped ahead of the browser: for two days, it was the only source of information about Chrome. *The New York Times* said it was “akin to hiring **Paul McCartney** to write a jingle.”

McCloud launched the workshop by giving us five minutes to draw the following story: “A man is walking down the sidewalk, whistling. He meets an elephant. The elephant has a cell phone. The elephant hands the cell phone to the man. The man thanks the elephant and walks off a cliff.” The story is random for a reason: McCloud wants to see how you tell a story you’re not familiar with, one that has no context.

“What matters is clarity,” he says. “And clarity depends on the choices you make. You must make five key choices when showing and telling any story: choice of moment, choice of frame, choice of image, choice of word and choice of flow. That’s it.”

From a leadership perspective, ‘choice of moment’ is perhaps the most critical aspect of creating clarity. It entails deciding which moments to include in your story and which to leave out. “So much of it is about editing,” Scott says. “**William Faulkner** had it right when he said that in writing stories, ‘you have to kill your darlings’.”

As for the ‘invisible art’, we learned that the magic and mystery of comics does not live in what is drawn. Rather, it is the ‘gutter’ — the white space between the frames—that holds the secret. While there is nothing in the space between frames, this is where the real action occurs: it is here that the reader is drawn in and engaged, because it is here that the story is left open to interpretation. It is here that attention is focused and imagination is sparked.

The reader’s experience produced by the ‘space between’ is what fascinates McCloud, as it does me. “Whatever the mysteries within each panel,” he says, “it is the power of closure between the panels that I find most interesting. Something strange and wonderful happens in this blankness.” What I’m really after, though, is an understanding of how to apply the concept of the gutter and audience participation in a non-literal way to engage people’s imaginations. For example, in an organization. So I ask the question.

“Well,” he begins thoughtfully, “In organizations, leaders who are able to lead people to a conclusion without spelling it out are practicing something very much like the gutter. If you think

of the typical org chart, where ideas flow from the top, that’s the more didactic conception. If you have instead an organizational structure where there is inspiration that encourages the flow of ideas upwards from the base, you might be looking at something more analogous to audience participation — and more analogous to what we’re trying to create with comics.”

This prompts another thought from him: “There’s a compelling theory in video gaming about the secret to games: that games are about ‘the abdication of authorship’. What makes something a game — whether it’s chess or Grand Theft Auto — is that the user feels as if they are the author of their own experience.

*Authors of their own experience.* I see the application to innovation and leadership in organizations right away, but McCloud is on a roll, and I’m not about to stop him. “When the user feels empowered to create their own experience,” he continues, “they don’t come away from the game talking about what someone else made; they come away from it telling others ‘what I did.’ It is the understanding of the nature of gaming that allows the gamer to create something more pure. It’s that sense of user agency, that people create their own narratives.”

What a great insight: the ‘invisible art’ is really about letting people write their own story, which becomes much more powerful because they’ve invested their own intelligence, imagination and emotion. Isn’t that something great innovators, leaders and companies all seem to be able to do?

### In closing

At the heart of every difficult challenge lie three tough choices: What to pursue versus what to ignore; what to leave in versus what to leave out; and what to do versus what not to do.

I have discovered that if you focus on the second half of each choice — what to ignore, what to leave out, what not to do — the decision becomes exponentially simpler. The key is to remove the extraneous stuff — anything obviously excessive, confusing, wasteful, hard to use or ugly. Better yet, refrain from adding them in the first place.

This is the art of subtraction: when you remove just the right thing in just the right way, something great is bound to happen. **RM**



**Matthew May** ([matthewemay.com](http://matthewemay.com)) advises companies such as ADP, AppNexus, Mars, Edmunds and Toyota. He is the author of four books, most recently, *The Laws of Subtraction: Six Simple Rules for Winning in the Age of Excess Everything* (McGraw Hill, 2012).