

CLIVE THOMPSON

Think Visual

Why the best way to solve complicated problems might be to draw them.



WHEN I WENT ONLINE to shop for a laptop this summer, I faced a blizzard of choices. Was an ultralight worth the price, or would a heavier model do? Did I need a big screen, or would it make the computer a pain to lug around? As I flipped from page to page reading screenfuls of specs, the options baffled me. So I picked up a different thinking tool: a crayon. ¶ Using one of my son's Crayolas, I drew doodles of all the laptops and covered them with little icons depicting the pros, cons, and cost of each. When I stood back and looked at the pictures, the answer leaped out. I could now "see" at a glance which deal best fit my needs and pocket-book (13-inch MacBook Pro with 8 gigs of RAM). ¶ In essence, I used "visual thinking"—drawing pictures to solve a problem. And if you believe the visualization experts, a new language of pictures may be precisely what we need to tackle the world's biggest challenges. ¶ My crayon experiment was inspired by Dan Roam, a visual-thinking guru and author of *The Back of the Napkin*. Roam argues that our culture relies too heavily on words: Our school systems—and political systems—are designed to promote people who are verbal and eloquent. And text tends to encourage us to describe our problems as narratives or linear lists of facts. ¶ But dynamic, complicated problems—like global warming and economic reform—often can't be boiled down to simple narratives. They're systems; they have many little parts affecting one another. In those situations, drawing a picture can clarify what's going on. "Words," Roam says, "won't save us." ¶ For example, during the health care debate, President Obama couldn't seem to communicate how the heck reform would work, no matter how many speeches he gave.

So Roam drew a series of witty napkin pictures illustrating the relationships between various health care players—doctors, insurers, patients—which he sketched on either side of a seesaw to show that what benefits one often hurts the other. Within a few weeks, nearly 300,000 people had viewed the images; many emailed Roam thanking him for finally explaining the reform. (Even members of Obama's staff called, asking for help with future communications.)

"If you want everyone to have the same mental model of a problem, the fastest way to do it is with a picture," says David Sibbet, a visualization expert who has spent the past three decades consulting for large firms. He often works as a "keynote listener," sitting in on meetings and drawing infographics to depict the issues raised. These images provoke aha moments far more often than typed or verbal summaries.

Unfortunately, picture-drawing is considered childish, which is partly why visual thinking has taken a backseat to verbal agility. But that may be changing, because the Internet has boosted the utility of imagery.

Consider the Google Maps mashups that highlight patterns in neighborhood crime or political donations, or the explosion of online animations that dissect public affairs (like the series RSA Animate). Even humor these days regularly employs visual tools, such as the charts at GraphJam or the satirical flowcharts in this very magazine.

But if we really want to unlock visual thinking, our digital tools have to evolve; they're still too dominated by the keyboard. We need iPad-like surfaces the size of posters so we can sketch out concepts, share them with others, and mull them over until patterns emerge. The computer got us this far; the crayon might get us even further. 

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