

# VISUALS THAT STICK

At Visually, we pride ourselves on creating compelling, memorable visualizations—visuals that “stick.” From infographics to interactive maps, videos, and real-time dashboards, our designers have developed tens of thousands of data visualizations to date.

From helping clients define the story they want to tell, to sourcing and analyzing the data to tell it, to presenting it in an engaging way, our designers and journalists are experts in making visualizations stick. In fact, our visualizations are often so compelling that they get pushed out across the web, embedded in other websites, and shared on social media—engaging audiences well beyond those they were initially meant to reach—and helping drive more than 30M visits back to the Visually site since 2011.

Recently, a group of computer scientists from Harvard and cognitive scientists from MIT took a scientific approach to the question, “What makes a visualization memorable?”—and used 1,721 Visually infographics as part of [a large-scale study](#) to help answer it.

The report’s findings confirmed many of our designers’ intuitive, tried-and-true best practices. But their work also shed light on some less obvious insights, like why our image-driven visualizations tend to perform so well.



THE TOP 12 OVERALL MOST MEMORABLE VISUALIZATIONS FROM THE EXPERIMENT (MOST TO LEAST MEMORABLE FROM TOP LEFT TO BOTTOM RIGHT).

# What Makes Visualizations Memorable?

After testing a variety of factors, from ink density and chart type to the kind of data being presented, the study found that the most memorable visualizations have certain elements in common. Specifically, they use multiple colors, have denser layouts, and include recognizable human objects (e.g., photos, people, logos).

“A visualization will be instantly and overwhelmingly more memorable if it incorporates an image of a human-recognizable object—any component that is not just an abstract data visualization,” says Haspeter Pfister, professor of computer science at the Harvard School of Engineering and Applied Sciences, and one of the study’s authors. “We learned that any time you have a graphic with one of those components, that’s the most dominant thing that affects the memorability.”

## MEMORABLE VISUALIZATIONS USE:

- COLOR
- HUMAN OBJECTS
- ILLUSTRATIONS
- PICTORIAL IMAGES
- DENSE VISUAL LAYOUTS
- NOVEL CHART TYPES (TREE & NETWORK LAYOUTS, DIAGRAMS)

The creative team at Visually agrees. “If you can recognize something, you’re more likely to remember it,” says Jared Fanning, creative director at Visually. “We always look for stories and connections when we create visualizations.”

The study also found that unique visualization types (e.g., pictorial graphics, tree and network layouts, diagrams) were more memorable than common graph types. “It appears that novel and unexpected visualizations can be better remembered,” the study says.

“You’d think the types of charts you’d remember best are the ones you learned in school—the bar charts, pie charts, scatter plots, and so on,” says Michelle Borkin, the study’s lead author. “But it was the opposite.”

The study confirms the insight that using familiar forms in unfamiliar ways is a great technique to connect with an audience. For example, while we’ve all seen a bubble chart, using [a bubble chart that updates dynamically](#) or a map that [connects two data sets in a new way](#) can drive addictive engagement. Likewise, presenting a math-intensive topic (“[What are the odds?](#)”) in a lighthearted, step-by-step way that’s easy to follow can have mass appeal.

“Make it unique, but make it familiar,” Fanning advises. “The thing about formats like tree diagrams is that they are derived from nature and occur organically in our lives. The logic behind them is familiar—the audience just hasn’t seen it as a chart before.”

At a higher level, the Harvard study underscores the rising popularity of infographics overall. “This research is an important step toward understanding some of the things that infographics get right,” says Drew Skau, visualization architect at Visually. “For presenting data clearly and memorably, infographics are a fantastic medium.” Recent data from eMarketer confirms Skau’s opinion: infographics are the single fastest-growing content marketing tactic of 2013, and are now used by the majority of B2B marketers.



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—Drew Skau,  
Visualization Architect, Visually

## It Starts with the Story

The best type of chart to use will always depend on the data being presented, but even if your boss doesn't like color, or your company requires you to use bar charts, the Harvard study's authors say visuals can still be made more memorable. At Visually, for example, we work with our partners to develop the story around their data—and to make that story digestible and engaging to an audience. "You can make something familiar either by keeping it simple or by having a little story around it," the authors advise. "It's not really that you should choose to use one color or many, or to include additional ornaments or not."

But just being memorable isn't enough. The best visualizations should also be aesthetically pleasing, easy to understand, and contextually appropriate. As Borkin says, "We need to keep asking these types of questions: What makes a visualization engaging? What makes it comprehensible?"

We couldn't agree more. In fact, before we ever choose a format for any visualization—chart, pictorial, or otherwise—we work with our clients to think through the story they want to tell.

"For us, it's always story first, then design," Fanning says. "A lot of times a client will say, 'We want our infographic to look like this,' and we'll educate the client that the story needs to come first. We work with clients to tease out what they like about that particular infographic—the color, the font, the way the story is told? We can ultimately use those elements in the design, but the content always comes first."

When Visually designers and journalists work with clients to craft their stories, they rely on a set of best practices developed over the years:

## BEST PRACTICES FOR STORYTELLING WITH DATA

- 1 Lead with the headline.** If your story ran in the newspaper, what would the headline be? What's the one piece of information you want the viewers to remember and take with them? Start there.
- 2 Put your journalism hat on—what's the scoop?** People remember what's surprising. Focus on what's new, different, interesting, or insightful in the data you're presenting. Even a static bar chart may have a story to tell.
- 3 Remember the arc of storytelling.** Your story should take people on a journey—think about the beginning, middle, and end of your narrative.
- 4 Don't fire all your data guns at once.** Teasing out your insights will keep readers engaged right through to the end. This could mean presenting the data through a series of charts, or including callouts that add layers of complexity to your visualization.

Only after we've determined the nature of the story our client wants to tell do we set out to develop a design that supports the story effectively.

## Designing for Impact

Our designers have many tools and techniques at their disposal to help them create memorable visualizations. From sizing to layouts, Visually's creative team uses, bends—and sometimes even breaks—the rules of design to help our clients achieve the greatest impact.

“After doing this for years, there are so many visualizations that look the same,” Fanning says. “I’m always thinking, ‘What unique ways can I design this data to make sure it connects and tells the story—and still stands out from the rest?’”

Some of the design elements Visually's creative team plays with include spacing, creating visual rhythm among objects, and overall messaging hierarchy. When creating any visualization, here are some of the design elements we keep in mind:

### KEY ELEMENTS FOR STRONG DESIGN

- **MESSAGING HIERARCHY:** What do you want to tell your audience first, next, and last? What are the most important messages for the audience to take away?
- **PLACEMENT:** Where elements go matters. In Western cultures, the most important elements should typically be placed in the upper-left position, since that's where we tend to look first.
- **SPACING:** How tightly and evenly the visualization's elements are laid out affects the visualization's sense of balance.
- **RHYTHM:** Repeated elements (colors, words, etc.) or question-and-answer type language can add rhythm and movement to the visualization.
- **SIZING:** In general, the larger the element, the greater its importance.
- **COLOR:** Color helps highlight key points, words, or conclusions—even if you use only one.
- **FONTS:** What's the tone of your visualization? Fonts can be corporate or friendly, evoke a particular era, present the facts or strike up a conversation.
- **IMAGE STYLE:** Logos and icons work well for more corporate visualizations, while hand-drawn elements and illustrations can add whimsy.
- **HEADLINES:** Crisp headlines provide context and clear takeaways for the audience. Think about making your headline bold and social media-friendly to promote sharing—or make your headline shorter and in a smaller font if you want your audience to get right into the data.

These are just some of the elements our team thinks about when we create visualizations. In the end, strong, memorable design simply enhances the story you're trying to tell.