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8 great data visualizations from TED Talks

Posted by: <u>Tom Carter</u> March 11, 2015 at 11:26 am EDT



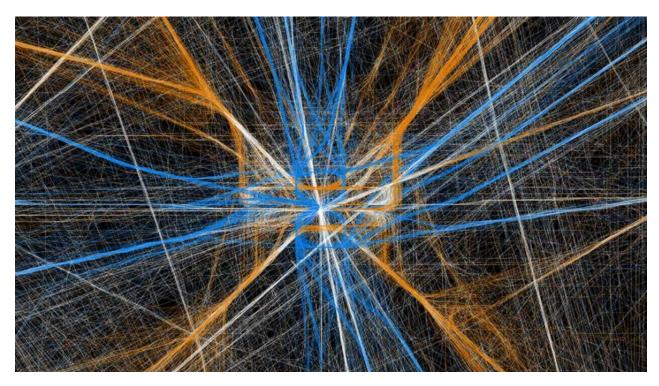












This image looks like a random assortment of blue, yellow and white string. But the lines actually visualize ascending and descending flights into and out of an airport, showing the air traffic control patterns that emerge over time. Courtesy of: Aaron Koblin

We live in a sea of data — and visualizations can help us understand the movement of individual waves. Great data visualizations can gather up enormous volumes of information, revealing the (sometimes sublimely beautiful) patterns underneath.

Next week at TED2015, <u>Manuel Lima</u> (founder of <u>Visual Complexity</u>) will explore how one particular data representation — the branching tree — has evolved over the past 900 years. Yes, data viz has been around for nearly a millennium.

And, of course, data visualizations are a big part of TED Talks, whether they map neuron activity inside our brains or trace crowdsourced drawings of Johnny Cash. Below, 8 of our favorites.



Eric Berlow and Sean Gourley: Mapping ideas worth spreading

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The event: TED2013

What they're illustrating: Ecologist Eric Berlow and data scientist Sean Gourley met at TED and discovered that their talks — on the data and ecology of war — were connected. They decided to map a wide variety of interlocking ideas, using TEDx talks as their data set.

Most eye-popping moment: At 2:57, talks (represented as nodes) spin and cluster into a multicolored 3D visual map of the TEDx universe.



Nathalie Miebach: Art made of storms

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The event: TEDGlobal 2011

What she's illustrating: Using strings and beads, Nathalie Miebach translates weather data into woven sculptures — and then uses the sculptures as a basis for musical scores.

Most eye-popping moment: Check out the detailed close-ups starting at 3:32, but don't miss the brief string quartet rendition of her score in the opening shot.



Aaron Koblin: Visualizing ourselves ... with crowd-sourced data

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The event: TED2011

What he's illustrating: Artist Aaron Koblin starts simply enough, with elegant, illuminated maps showing U.S. flight path patterns. But his crowdsourced illustration projects quickly lead us into strange and uncharted visual territory.

Most eye-popping moment: At 13:08, Koblin plays a clip from his music video for a posthumous Johnny Cash track, using thousands of web-sourced, frame-by-frame Flash drawings to build a hypnotic and moving portrait of the country legend.



David McCandless: The beauty of data visualization

The event: TEDGlobal 2010

What he's illustrating: The glut of information in our world clouds our



David McCandless: The beauty of data visualization

understanding of current events. Data expert David McCandless shows how infographics help us make sense out of statistics.

Most eye-popping moment: At 2:07, McCandless provides a sobering and simple graphic to illustrate the catastrophic impact of the 2008 financial crisis.



Carter Emmart: A 3D atlas of the universe

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The event: TED2010

What he's illustrating: Oh, the entire known universe, circa 2010

Most eye-popping moment: We pan up from the peaks of the Himalayas to the edge of the cosmos in less than 7:00. You're really going to want to see the whole

thing.



Margaret Wertheim: The beautiful math of coral

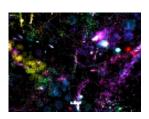
Margaret Wertheim: The beautiful math of coral

The event: TED2009

What she's illustrating: Using knitting techniques derived from mathematical algorithms found in natural forms, Margaret Wertheim and her collaborators crocheted a jaw-droppingly accurate re-creation of a coral reef.

Most eye-popping moment: From 1:19-1:55, we get a slideshow picturing Wertheim's "corals" in breathtaking detail, revealing both their mathematical structure and their eerie realism. Don't be surprised when you reach for your

snorkel.



JoAnn Kuchera-Morin: Stunning data visualization in the AlloSphere

JoAnn Kuchera-Morin: Stunning data visualization in the AlloSphere

The event: TED2009

What she's illustrating: Using two giant, suspended hemispheres as a projection surface, the AlloSpere allows scientists and artists to get inside their data visualizations — literally. JoAnn Kuchera-Morin takes us on a tour.

Most eye-popping moment: Although the fly-through of a graphically reconstructed human brain will have you ducking for cover, the electron spin model at 4:11 rivals anything from the finale of Kubrick's *2001* for sheer kaleidoscopic impact.



Chris Jordan: Turning powerful stats into art

The event: TED2008

What he's illustrating: Chris Jordan documents the excesses of modern culture with seemingly innocuous, decorative art that takes a dark turn as we examine its components more closely.

Chris Jordan: Turning powerful stats into art

Most eye-popping moment: Six minutes in, we see a breast, constructed from a minutely detailed mandala of 32,000 Barbie dolls — one for each of the breast augmentation surgeries performed every month in the U.S. in 2008.













big data data visualizations

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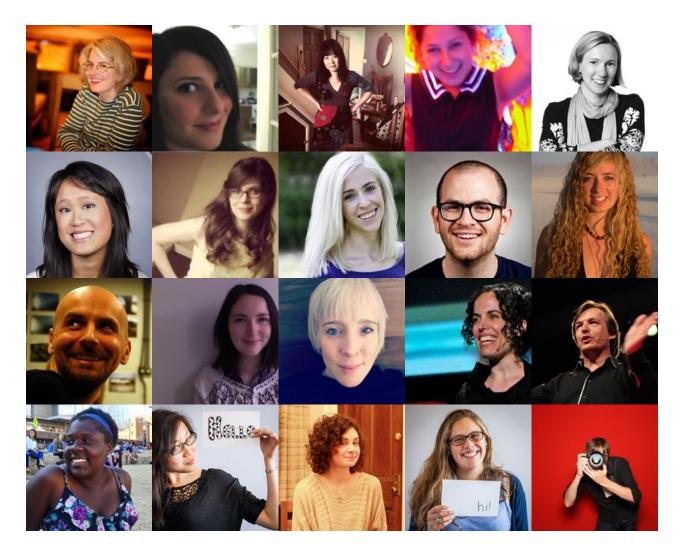
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TED Talk data visualized as a flow of words and a sphere of connections

By Kate Torgovnick May on Oct 30, 2014

At first glance, the image above may look like an artistic tangle of worms. But it is actually a visualization of the words that appear most often in TED Talk descriptions. Each line corresponds to a word, and its snaking movement shows how its frequency of use has changed over time. Mouse over the word [...]



Data researcher Jean-Baptiste Michel made his first piece of art ... and the Whitney Museum acquired it

By Kate Torgovnick May on Apr 17, 2014

Jean-Baptiste Michel has sold a small sculpture to the Whitney Museum of American Art. A major museum acquiring a piece—that's a big moment for



any artist. But this sculpture is the very first piece of art Michel ever created. Michel is the data researcher who showed what you can learn using Google's Ngram Viewer at TEDxBoston in [...]

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thelibrariansfy commented on Mar 15 2015

In the world we live in today, data and information transferring is one of the most important things in everyone's live. Recognizing that this exchange holds patterns underneath all of the fluff can really help us to understand one another more easily. I personally think that having instant data-transferring abilities has had both good and some bad effects on humans, though, the bad being that fact that our anonymity online sometimes leads us to not show as much courtesy to others as we should.

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