

# The Data Visualization Process

## The Ben Fry Visualizing Data Process

[Ben Fry](#) knows Data Visualization. He wrote a book called [Visualizing Data](#) (Affiliate link). The book guides you through figuring out the right questions to ask, how to answer those questions, and how to convey the right information given the right data set.

From his Amazon Author's Bio, it is easy to see that Ben Fry has thought about Data Visualization a great deal:

Ben Fry received his doctorate from the Aesthetics + Computation Group at the MIT Media Laboratory and was the 2006-2007 Nierenberg Chair of Design for the Carnegie Mellon School of Design. He worked with Casey Reas to develop Processing, which won a Golden Nica from the Prix Ars Electronica in 2005. Ben's work has received a New Media Fellowship from the Rockefeller Foundation, and been shown at the Museum of Modern Art, Ars Electronica, the 2002 Whitney Biennial and the 2003 Cooper Hewitt Design Triennial.

In the first chapter of the Visualizing Data book, Ben Fry sets up the Data Visualization process as a series of steps:

1. Acquire
2. Parse
3. Filter
4. Mine
5. Represent
6. Refine
7. Interact

## Acquire

Obtain the data, whether from a file on a disk or a source over a network.

In [DashingD3js.com](#) you will start by manually generating data for the beginning. Later you will turn to existing data sets. Much later you will scrape websites to get interesting unstructured data sets.

## Parse

Provide some structure for the data's meaning, and order it into categories.

The amount of Data one can collect and analyze is immense. It is necessary to put the data you collect it into a structure. This structure will make it easier to know convey to others what data you have by format, tags, names, and indices.

## Filter

Remove all but the data of interest.

After putting the data into a structure. You will have to filter out the data that is not necessary for your Data Visualization. If you are doing a specific gender visualization, you would have to remove the genders you did not want in your data set.

## Mine

Apply methods from statistics or data mining as a way to discern patterns or place the data in mathematical context.

The focus will be on basic statistics in the beginning. More emphasis in discovering patterns will occur in later sections. This step helps get basic understanding of the data before doing the representational step.

## Represent

Choose a basic visual model, such as a bar graph, list, or tree.

The crux of this website will focus on how to choose the basic visual model as well as how to represent it. We will use the ["A Periodic Table of Visualization Methods"](#) chart as our guide.

## Refine

Improve the basic representation to make it clearer and more visually engaging.

The focus here will be on CSS3, HTML5, and SVG. Some basic color theory will be covered. Some basic graphic design theory will also be covered.

## Interact

Add methods for manipulating the data or controlling what features are visible.

This is where D3.js will really make its mark.

Want to better understand this topic? Check out this step-by-step course => [Introductory D3 Training](#)

← Why Build Data Visualizations with D3.js

Basic Building Blocks →

### Learn D3.js

[D3 Tutorial](#)  
[D3 Screenshots](#)  
[D3 Mapping Training](#)  
[D3 Introductory Training](#)  
[D3 Intermediate Training](#)  
[D3 Advanced Training](#)  
[D3 Corporate Training](#)

### DashingD3js.com

[Blog](#)  
[About](#)  
[Hire Me](#)  
[D3 Examples](#)  
[D3 Resources](#)  
[D3 & Data Viz Newsletter Archive](#)

### Data Visualization & D3.js Weekly Newsletter

Get D3.js and Data Visualization news, articles, jobs and more delivered to your inbox every Tuesday:

Get the Newsletter

Did you sign up for the newsletter? :)

© 2012-2015 DashingD3js.com. All rights reserved.