

## Visualizing Information Age

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Information visualization is visual illustration of an amount of assembly of information so massive, or arbitrary, that it is hard to be interpreted at a glance. Information visualization can be subsumed under few different kinds of category. Information graphic and data visualization are the most widely known developments. The purpose of both methods is to communicate a huge amount of quantum information efficiently and quickly.



**Data visualization is visual reinterpretation of data. It was used in scientific visualization as a tool to support analytic reasoning that demystifies data to analyze phenomena.** Data in numerous sets of schematic forms, such as stock market, non-numerical data or computing language, were the major subjects of data visualization for scientific visualization for some experts. For several decades, data visualization has also been used in certain fields of study for military and medical purposes, but it has not been utilized extensively. However, the advent of software, flash and process, which are radically cheaper (free, even) and easier to get accustomed with than the previous generation of data visualization system, has introduced this useful method to the public and has changed the norm dramatically. You do not need to excel in C++ or own a super computer to visualize data.



Secondly, **the advent of the Internet has brought a pervasive computing culture. Thus, collecting and viewing through data has become a part of our everyday life. Like we breathe, computers generate data.** As we interact with the Internet, we are constantly generating data; our entire activities on the Internet and computing are tracked and recorded. Even our browsing history is cumulated somewhere and such history will not disappear unless we intentionally delete them. Bruce Schneier briefly illustrated this era - the information age - in his short essay: **“Welcome to the future, where everything about you is saved. A future where your actions are recorded, your movements are tracked, and your conversations are no longer ephemeral (BBC 2009).”** **“Data about you is collected when you make a phone call, send an e-mail message, use a credit card, or visit a website (BBC 2009).”** Since we are living in the information age and every inch of our lives are affected by these phenomena, we must understand and utilize them.



Information graphics, so called info-graphics, has a slightly different approach compared to data visualization. Instead of visualizing data, **information graphics presents information by using graphical elements that are relevant to data, which may include charts, diagrams, graphs, tables, pictograms and maps. As a visual tool, it presents useful information in a way that is easy to view and effective to communicate data with.**



Info-graphics has been used since prehistoric times. Early humans created cave murals in pictorial drawings of symbolic icons to record what they did and where they went.



**In the middle ages, Christopher Scheiner became one of the first persons to explain his astronomical research on the Sun in visual form. In the modern time, we use info-graphics to deliver and communicate relationships and systems of complex information and knowledge in intuitive ways, rather than merely keeping records or explaining scholarly theory.** Peter Crnokrak outlined the role of contemporary info-graphics in his article for IDN: **“Information graphics’ primary purpose is to inform. In many cases, the goal is to simplify complex data into understandable visual representations using symbols that can be universally interpreted (Crnokrak 2008).”** Dave Bowker also argued: **“Info-graphics and data visualizations are all about communication information. If they don’t communicate then they fail at being informative (Bowker 2008).”**



The use of semiotics in info-graphics is the most distinctive characteristic of all. Semiotics stimulates our cognition of specific objects and assists us to retrieve all of the relevant information we have about those objects from our brain. This system of sign offers viewers access to places so they can absorb more information beyond the reach of texts. As our perceptions constantly change, we are constantly changing and creating value and meaning of objects; this way of interaction between human brain and semiotics is conducted every time we see a sign. Furthermore, the meaning of certain symbols can be slightly different to some individuals according to their perceptions. However, even these symbols can be universally interpreted. Juan Velasco, the graphics editor for National Geographic, defined the characters of info-graphics as: 1. it is a visual explanation that helps you more easily understand, find or do something; 2. it’s visual, and when necessary, integrates words and pictures in a fluid, dynamic way; 3. it stands alone and is completely self-explanatory; 4. it reveals information that was formerly hidden or submerged; 5. it makes possible faster, more consistent understanding; 6. it’s universally understandable (Velasco 2008).”

The visualization of given information widens the width of human cognition and helps viewers to absorb large amounts of data at single glance. It unveils the pattern of massive amounts of collected data so that they are not shown in a bare view, guides the path and trend of flow of data, and helps viewers to envision potential events. A role of visualizing databases will be more significant in the future society, where the overflowing information will be ubiquitous, because oftentimes, visualization of databases, such as info-graphics, makes viewers easier to understand complex systems or massive amounts of information, giving them access to more diverse and beneficial information.



**Data visualization not only describes complicated and massive clusters of information comprehensively and efficiently, but it also performs as a new form of cultural act. Data and information-oriented art have been thriving, using various and sophisticated methods, through the deconstruction and redefinition of the current era; the information age.** These days, people often bestow meaning on the method, process and aesthetics of visual interpretation of data and the data itself. The reason why people evaluate the socio-cultural value of the act of information visualization is because the existing data and information, after all, are parts of us that track of our everyday lives and portray our culture. We are the ones who give birth to and nourish data and information.