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Why Information Design Is Important

'Why is Information Design important? Explore how Information Design helps to shape the world around us as well as our understanding of it.'

Information design is the process of organizing and presenting information through visual elements to allow users to comprehend the world around them. Informational design is more than simply a subset of graphic design or visual communications; it is an approach to clarity, usability, decision-making and understanding. Examples of informational design include the signs and maps we see every day from reading a transit map to understanding COVID-19 and ways to prevent it. Good informational design is not something that is nice to have but necessary in our daily lives. As the volume of information available continues to increase along with the number of people using that information (exponentially) so too has the need to organize that information in such a way to facilitate clarity, safety and empowerment.

Information design has a profound impact upon the way individuals perceive and interact with their environment and the structures that support that interaction. The

purpose of this paper is to explain why informational design is important and how the social, cultural, technological aspects of informational design have shaped the way in which it has evolved and impacted the way we view the world.

Everyone uses informational design every single day, however most people are not aware of the fact that they do because they are taking it for granted. When informational design is effective it is rarely noticed; when it is ineffective it is very noticeable.



Figure 1. Diagrammatic map of the London Underground (after Beck, 1933)

Figure 1 of Harry Beck's 1933 London Underground map represents how informational design can greatly influence the way we think about the world. Beck did not compromise the geographical accuracy of his map; instead he opted for visual clarity

and functionality. By reducing the complexity of the actual city into

easy-to-follow straight colored lines, Beck was able to successfully simplify the idea of a map, leading to a change in how cities across the globe are represented on a map. The map is still widely used today in cities like Tokyo, New York etc... The map illustrates how informational design can completely shape the way people will navigate the world, if informational design did not exist, we would be lost, and society would not function without rules, and one of those rules is informational design, and therefore without informational design, navigating urban environments would be much harder and reinforce the statement of why informational design is important.

Information design does not occur in a vacuum; it is influenced by both societal and cultural norms, social requirements, and political agendas. For instance, different

cultures assign various meanings to typeface and color. For example, in Western societies red is generally associated with danger and a sense of urgency while in some Eastern cultures red is associated with celebration. Therefore, anyone who wishes to work in the field of informational design must consider items such as this when attempting to communicate ideas, since they must consider all cultures to ensure no miscommunication occurs.

One of the best examples of culturally responsive design is the pictogram used for international communication.



Figure 2. Pictogram system developed by the Tokyo 1964 Olympics.

Pictograms were originally used for the Tokyo 1964 Olympics, and later expanded upon for the 1974 Munich Olympics to introduce a universal visual language to aid in overcoming language barriers, similar to the example shown in Figure 2, Pictograms are used universally and are recognized by people of all ages and cultures around the world regardless of where you are in the world you will always find informational

design to lead you to your destination and further enhance your ability to interpret a foreign culture you may have never experienced before. The rapid growth of air travel during the mid-20th century resulted in increased pressure for transcultural communication systems, and informational design responded to that need.

Examples of modern-day applications of informational design include emojis, airport signage, hazard symbols, and weather icons, all of which originated from the original systems mentioned above. These examples illustrate the role that informational designers continue to play in today's society addressing cultural differences by developing simpler forms of communication that bridge language gaps and are

understood by all. The social role of informational design is more than aesthetic; it is based on the principles of communication and inclusion.

The John Snow 1854 cholera map is an early and highly influential example of information design as a scientific and societal tool. During the mid nineteenth century cholera continued to cause outbreaks throughout London; the prevailing belief at the time was the "miasma theory" which indicated disease was caused by poor air. Many individuals believed in the miasma theory while a few did not, including John Snow who believed cholera was caused by contaminated water and hypothesized that he could find a pattern to support his hypothesis by mapping out all of the places he knew of where people were dying from cholera in the Soho area and by placing a small bar at each place (death).

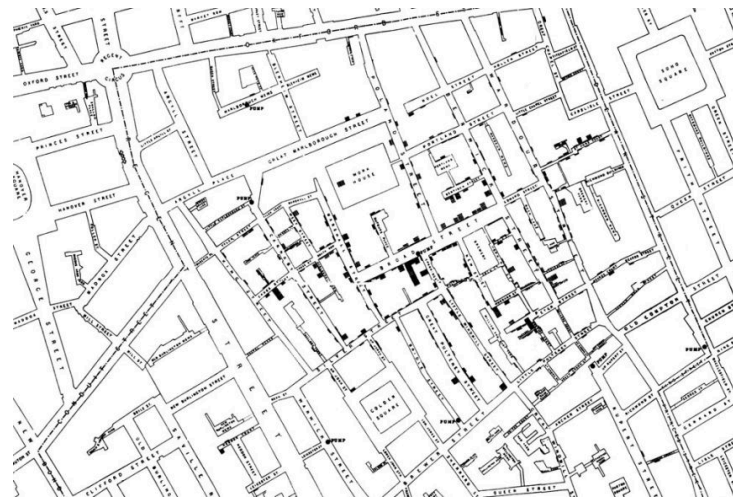


Figure 3. John Snow's cholera map of London, 1854

After plotting the bars spatially the pattern was identified as being around a specific public water pump located in Broad Street. In addition to providing Snow with the visual information needed to prove that the disease was waterborne and not airborne, it allowed the public to visualize the truth of the matter as well. As such the results of the map were revolutionary.

Even though there were those that went against Snow's hypothesis continuing the debate, the map was instrumental in changing both medical thought and public health policy. The map helped facilitate public health sanitation improvements and developed the foundation for modern epidemiology by providing a visual representation of the relationship between contaminated water and disease. The results of Snow's work demonstrates the potential for information design to positively affect our social society but also to help overcome misinformation and create structural changes. By using information design to challenge theories and develop new ones, the map changed how society viewed disease transmission.

All three of these examples show how information design is rooted within social and cultural settings. John Snow created his map during a time when there was a public health crisis in London. With the use of simple visualization and a clear thesis, Snow used his visual method to allow others to explore an alternative to the then prevailing model theory that ultimately saved the lives of many people at that time and changed the way the medical community was thinking thus information design was a means of creating change.

Beck's map was developed during a period of confusion and disarray in a city, and Beck's map helped generalise information design to the public and created a very strong public image of the product, which is still being used worldwide today in almost every town and city. He did not only revolutionise the way we travel today, he also gave us an understanding of the power of information design in empowering people and providing a model of how information design can impact and shape the present-day society and the future of our communities and how it will provide us with a better understanding of how we can continue to grow and develop. Beck's modernist solution to the problem using simple lines, minimalism, and abstracted geometry were part of broader cultural trends in industrial design and embodied not only the practicality of the map but also its value to the people and its era, shaped by their cultural, technological, and social environments.

Advancements and improvements in technology have continued to provide new opportunities for information design. Snow had to rely on little more than a pen, paper, and the hand-gathered data when he produced his map. Beck had the aid of geometric tools and print when he developed his map. Today, designers rely on digital screens and algorithmic data to show how far we've progressed as a society over the last few years and just one of the major contributions we made in getting us to where we are today.

As a result of the rapid increase in Big Data, the importance of information design is more critical than ever. There are millions of complex data compositions that cannot be understood by simply reading the numbers and letters supplied. Therefore, we employ various forms of interactive dashboards, live maps and digital graphics to assist individuals who require guidance through the complexity of the data provided to make it easier to understand. Visual analytics are now indispensable in areas such as disease tracking, transportation, urban planning, environmental studies, and government decision-making.

The emergence of artificial intelligence (AI) has made automation possible in the field of information design and whether this is viewed as a positive or negative is arguable, however I personally feel that AI could be utilised to provide people with the knowledge required to understand numerous problems, and/or provide them with additional insight into the data that they are unaware of, but conversely, it also demonstrates that society is becoming increasingly complacent and relying on quicker ways to resolve problems rather than spending the time to think about the problem itself. Additionally, it could be argued that AI can assist society in terms of developing and creating autonomous vehicles and other automotive systems replacing additional needs, but conversely, AI does come with a negative aspect that is the potential for AI to encounter numerous challenges while attempting to produce the desired results based upon a standard of a "real" practice.

In addition to influencing behavior, one of the main objectives of information design is to affect people's actions. Snow's map affected the need for public health interventions; Beck's map changed the way people travel today on trains, etc. There are numerous examples of information design not only saving lives but also demonstrating its significance in developing social society.



Additionally, some information designs transcend their original

function and become cultural icons and emblems representing their country of origin, in some cases because of their level of social influence. Beck's Underground map has become an iconic representation of London and has been featured on various

Figure 4. Licensed London Underground Tote Bag

types of products and merchandise as shown in figure 4 even making a name in fashion., in addition to being referenced in

popular media. The straightforwardness of Beck's map lines along with its bold colors, represents a particular type of vision of the city Snow's map serves as a symbol of scientific thinking and evidence-based research. These assertions demonstrate how information design can become a component of a community's collective memory.

A contributing factor to why these examples endure is not only their simplicity and effectiveness in providing a solution to the problem at the time of their creation but also the amount of power they will exert in the future economy. Beck's map provides an organized system of navigation, by transforming the chaotic reality of London's underground transportation system into an ordered informative design capable of assisting people of all ages to navigate. Furthermore, it conveys a promise to those who view it that the city can be navigated with complete ease if read correctly.

Conversely, Snow's map illustrates a different type of narrative by illustrating a new approach to and a new preventative measure for the crisis they faced. Furthermore, by linking the cholera map to the nearby pump, the map exemplifies how information design can serve as a tool not only to guide people through the complexity of the issue but also to reveal truths that were previously unknown, thereby significantly altering public health at the time.

Both maps are successful both as examples of practical and symbolic design. Both have guided people through their daily routines while testing the limits of old ways of doing things. Ultimately both maps will come to represent broader social values: Beck's map for Modernity and Design Thinking, and Snow's map for Evidence-Based Reasoning and Scientific Progress.

Furthermore, the two maps illustrate how information design influences how we collectively remember our experiences and travel through spaces. The two maps not only continue to function as useful tools but they are now ingrained into how societies think of events and get around, therefore transforming information design from simply an exploratory tool of technical communication to being involved in a richer cultural experience, helping to shape how people perceive themselves and their surroundings.

Information design can help clarify issues for the public, however, there are also potential problems associated with designing information. Some critics believe that design can affect perception, for example, Beck's map reduces the geographical distance, which could be misleading to users on distances. Other critics say that visualizations can oversimplify complexities. Additionally, design often embeds cultural assumptions with colors, metaphors, and symbols which can limit user access.

Also, there is a risk of using information design to persuade visually. While graphics may look good, they may give users a false sense of the designers' authority or objectivity regardless of whether the data is accurate. Therefore, information design needs to be aware of its own ethics and transparency. Designers need to find a balance between providing clarity and accuracy, accessibility and disclosure of assumptions.

A lot of what is now being done in information design has been very critical to our understanding of the risks, how Covid-19 can be transmitted and ways to protect ourselves from it; and this was particularly true because we needed to have good communications about all these things. Governments, health organizations and the media used many of the visualizations (graphs of rates of infections, R number graphics, heatmaps and simple diagrams (as shown in figure 5.) of distance and

airborne transmissions) to communicate the complex epidemiology of the disease to

the general public. These graphics enabled non-scientists to visualize an exponential increase in cases. Good information design also influenced trust and compliance. The graphics provided clear, consistent health recommendations, making health

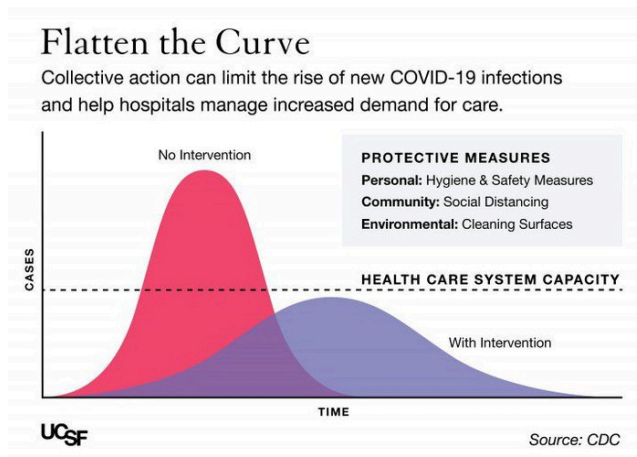


Figure 5. COVID-19 Flattening curve

advice seems accessible rather than

overwhelming. However, poor or confusing designs and conflicting graphics were sources of confusion and misinformation. Additionally, culturally sensitive design strategies were required so that the messages were received by all communities

Information design is so important, as it makes the complicated simple. It provides the framework for people to understand data; to find their way through a city; to make informed choices; and to know what is going on in their environment. The two maps used in this essay (Snow's cholera map and Beck's London Underground map) are only two examples of how Information Design can expose the invisible structure of an environment, modify people's perceptions of the social world, affect behavior, and create a part of cultural identity.

The way people see their surroundings, the way they act and the way they express their culture can be influenced by Information Design. The use of visual systems in communicating messages like the pictograms from the Tokyo 1964 Olympics and the COVID-19 public health posters show how information design can provide a means of communication for people who speak different languages, and thus, break down cultural barriers through universal communication. Information Design is important as it provides structure to abstract ideas, illustrates patterns in large amounts of complex data, and continues to shape the world.

Figure 1. Diagrammatic map of the London Underground (after Beck, 1933).

<https://tfl.gov.uk/corporate/about-tfl/culture-and-heritage/art-and-design/harry-becks-tube-map>

Figure 2. Pictogram system developed by the Tokyo 1964 Olympics.

<https://mediamadegreat.com/olympic-pictograms/>

Figure 3. John Snow's cholera map of London, 1854

<https://education.nationalgeographic.org/resource/mapping-a-london-epidemic/>

Figure 4. Licensed London Underground Tote Bag

<https://www.amazon.co.uk/GWCC-Licensed-Official-Underground-Roundel/dp/B0D1VWMJVW>

Figure 5. COVID-19 Flattening curve

<https://www.caresouth-carolina.com/news/why-outbreaks-like-coronavirus-spread-exponentially-and-how-to-flatten-the-curve>

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