

Research in Context

Question 4 - “Why is Information Design important? Explore how Information Design helps to shape the world around us as well as our understanding of it”

Student: Alexandra Emanuela Craciun

Student number:1816129

Program of study: BA Creative Advertising

Module: Research in Context ADAD5003

Tutor: Donna Williams

Words count:2620

Table of Contents

Introduction	3
Main Body	4
Conclusion	11
References	12

Introduction

Information design can be referred to as the process or method through which information is simplified and presented in the most accessible and understandable manner for the viewers (Bergemann and Morris, 2019).

Information design is found in day-to-day activities and processes all around the world and is made to target specific groups of audiences in specific circumstances and situations in order to achieve certain objectives. It is closely related and many times has been associated with graphic design as displaying information using graphics like images, and signs and more significantly increases its effectiveness when compared to simply writing and aesthetics (Condorelli. and Szentes, 2020).

There is a wide range of information that is often misunderstood or not at all interpreted by people in the way it is intended to be due to its complex nature. This creates confusion and difficulties for the users and in certain situations, it could also have a significant negative impact depending on the importance of the information. Information design simplifies and presents this information in the form of visuals and pictures to enable users to understand easily (Makris and Renou, 2021).

However, the role of information design is not only limited to complex information but it is also found to be incorporated everywhere around the world and the scope is continuously broadening with new technologies. In the coming years, information design will be the solution for every problem related to perceiving information in the way it is intended to be (Romanyuk and Smolin, 2019). This essay will further shed light on the importance of information design and how it contributes to shaping the world and its understanding.

Main Body

Information design was popularised by the likes of Richard Saul Wurman, Edward Tufte and other contemporary information architects who also used it in close association with data visualisation (Bullock *et al.*, 2018). This is a raw form of information design consisting of raw images and graphics that are left for interpretation and conclusion by users on their own without any intention. This is not the case with information design as it intends to make users understand a certain meaning through the use of those raw images and graphics.



Figure 1: “Napoleon’s Russian campaign of 1812 by Charles Joseph Minard”

(Source: Taws, 2021)

The above flow diagram of Napoleon's catastrophic campaign against Russia in 1812 is known to be one of the earliest forms of information design or data visualisation. It was developed by Charles Joseph Minard in 1869 and it is one of the most significant pieces of information design that has provided important pieces of information about history (Jégou, 2019). However, the development in technology has significantly enhanced and upgraded the way information designs and visuals are presented over the years. Thus, it could be said that information design holds great significance in the current world as everywhere people heavily rely on them to understand complex data and information.

Information design significantly changed the world with the advancements in technology in recent times but the extent of its implication and benefit is found in the theories and principles associated with it (Mann, (2018). However, to understand these theories and principles it is necessary to first understand that this area or discipline is multi-dimensional. Hence, it does not rely on a specific culture or language like other disciplines of chemistry, maths, English and so on.

In this respect, information design can be considered a multi-disciplinary as well as inter-disciplinary practice encompassing aspects of education, graphic design, architecture, engineering, construction and production (Fardis, 2018).

Information design also consists of two components just as engineering, architecture and more. These include the theoretical component known as “*infology*” while the practical component is known as “*infographic*”. These are usually required for teaching information design, however, it is also significant in determining the benefits and importance of information design in the world (Jung *et al.*, 2018).

Infology is the science that enables the combined use of verbal as well as visual representation in a way that results in the achievement of optimal communication between the sender and receiver. Infographic, on the other hand, is related to the practical application and the related skills and efforts required for designing the information (Walden *et al.*, 2020).

The use of complex languages in texts, as well as pictures, can severely impact the understanding of a message which is why information design is required to simplify the communication process.

The materials and contents use graphics incorporated with pictures and signs that demonstrate active voice, clarity, consistency, information ethics, memory, precision, quality, readability, simplicity, emphasis, comprehensibility, legibility, unity and more such key concepts (Srai and Lorentz, 2019).

Learning and understanding is a continuous process that begins with the extraction of data, interpretation into information, knowledge and eventually gaining wisdom. If the information is not designed by incorporating the above-mentioned key concepts it could provide wrong data which could further have negative impacts. In this case, the person receiving the information could lose confidence or turn incompetent compared to before receiving it.

Information design and its multidisciplinary approach have also been highlighted by the Information Design Association with a focus and emphasis on multiple skills from a diverse range of disciplines (Taneva, 2019).

This means that a well-structured and developed information design combines efforts from a range of skilled writers, editors, visual designers, content creators, data visualisation professionals, illustrators and more. To sum it up, there are a lot of people behind visual representations that are visible in every corner of the world such as restaurant boards, menus, street signs, traffic signs, and many more (Condorelli and Szentes, 2020). They put in a lot of work and effort collaboratively to produce effective information designs enabling people to understand them easily.

Thus, information design enables people to finish tasks, meet their demands and needs, reduce their frustration, solve problems and more. The sole purpose of the information designs is to understand and identify people in need of simplified content in order to decipher complex information and presenting in the most effective way.



Information designs, unlike raw data that only provides uninterpreted and complex facts that are harder to understand, take the users on a journey with exciting and interesting visuals and graphics turning the message to be simple and easier to perceive (Condorelli. and Szentes, 2020). There are many instances when raw data can be interpreted and perceived in multiple ways which can even change the meaning and purpose for which it was intended in the first place.

However, the use of signs, images, colours and more can direct the viewers in the direction in which the information was intended from the start. Moreover, the scope covered by information designs in interpreting and simplifying complex information is vast and diverse and can be implied in any discipline or situation.

This can be understood from an example of the famous diagram of the “Causes of Mortality in the Army of the East”, an information design developed by Florence Nightingale in 1858. Popularly known as Nightingale’s Rose, this diagram is a great example of information design as it visualised the statistics involving mortality of the Crimean War that was fought between 1853 and 1856 (Makris and Renou, 2021). This diagram has sophisticated raw and complex data on mortality that was highly appreciated during that time and still holds great significance.

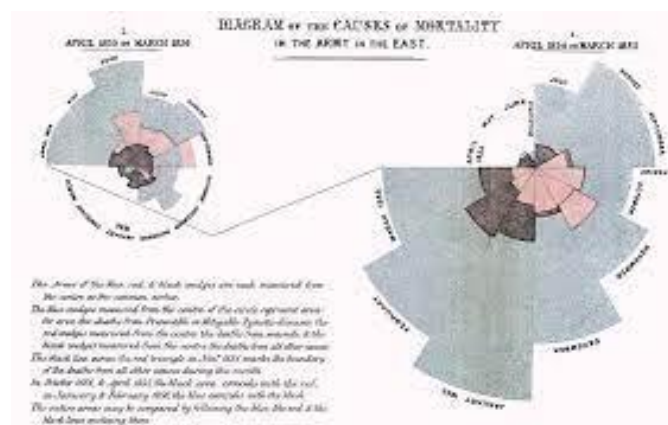


Figure 3: “Diagram of Causes of Mortality in the Army of the East”

(Source: researchgate, 2018)

Information design can be dated back even before the earliest examples surfaced in the form of graphs and charts. One such example dates back to the time between the latter part of the 1700s till the early 1800s when a Scottish engineer by the name of William Playfair introduced some publications. They consisted of the visualisation of statistical data and information in the form of pie charts and graphs that he coloured and made by hand (Bullock *et al.*, 2018).

Modern technology has made it seemingly easier for today’s generation to develop graphs and pie charts using computer and software assistance. However, the use of such informative and easy-to-understand graphs and charts was a significant achievement and driver for the transformation of the world in terms of the distribution of information.

These graphical representations laid the foundation for the flow of information and communication with the use of simpler forms of messages known as information design.

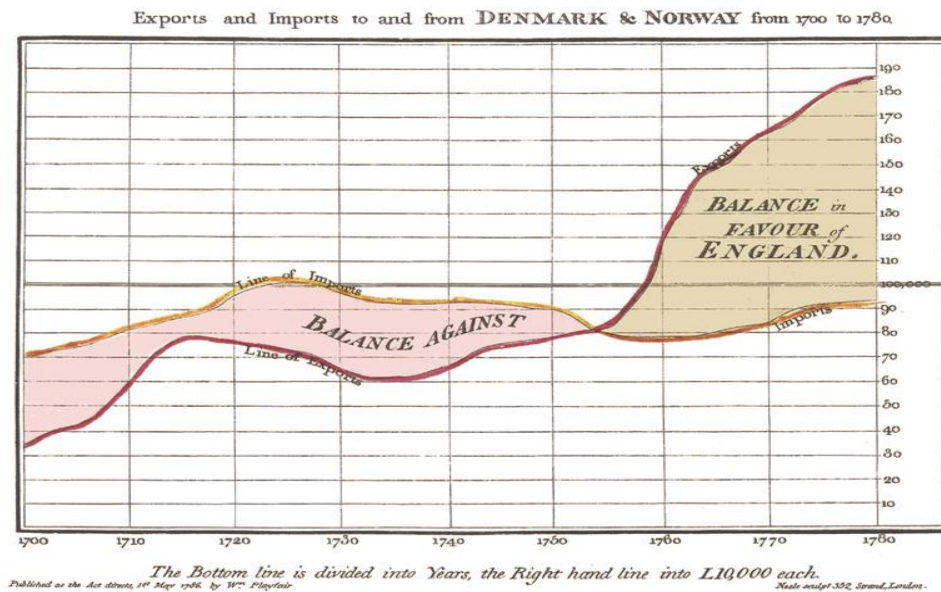


Figure: “William Playfair Information Design”

(Source: Pearce, 2018)

Although the benefits, advantages and need for information design have been discussed over and over, it is necessary to understand that the relevance of information design has increased significantly in the current world. This is due to the overflow of data and information that has been possible with the latest technological developments. Information is flowing like an endless ocean nowadays with social media platforms, emails, text messages, personalised advertisements, and promotion campaigns and many more (Durovic, 2020).

Thus, it has become increasingly important for information designers to take responsibility for the content that they create. They need to ensure that the users are easily able to identify and understand important and crucial information from a wide range of texts, messages, pictures, figures and more.

Digital and creative content has become the new normal for businesses around the world to persuade customers into buying their products and services. They have been found to be using images, graphics and other forms of visual representation to attract customers around the world and increase their engagement, reach, sales volume and profitability (Walden *et al.*, 2020). However, in doing so, businesses sometimes go overboard with false or fabricated information and graphics to attract customers. This is immoral and illegal and could land them into serious legal trouble under **“The Consumer Protection from Unfair Trading Regulations 2008”** (Durovic, 2020).

Businesses need to adhere to ethical and moral obligations and develop the right information designs to help consumers understand complex information regarding their products and services in the most efficient way. The right and effective use of information designs can have a positive impact on customer engagement and loyalty and further result in attracting more customers to increase sales and profitability.

The benefits of information design are endless and so is its practical application around the world. It has significantly changed how information providers engage in demonstrating and providing knowledge and information and how people perceive that information. The need for responsible information design is rising every day with the increase in information flow and the advent of new ways of communication and interaction through technology.

Cultural values and morals are also closely linked with information design and they also play a crucial role in allowing information designers to work in the most ethical and efficient way to provide simplified forms of messages to ease lives (Manson, 2020).

Different places have certain sets of information and graphics specific to them aligned with cultural norms and behaviours. Culture is the way of living while designing encompasses the principles and values for simplifying and easing the way of living.

Therefore, both culture and information design are linked with each other and have moved together since ancient times. However, information design has enabled the world to be aware of various cultures around the world to better understand each other. It has facilitated the promotion of unity and diversity and allowed people all over the world to come together and appreciate each other's differences.

The application of information design is according to the six functional principles that include *“defining the problem, providing structure, providing clarity, providing simplicity, providing emphasis and providing unity”* (Fardis, 2018). These functional principles enable the identification of the sender, receiver, and medium for the message to be sent in the most effective way and include a clear structure for the viewer to understand the intended purpose of the information.

Moreover, the principles also ensure that the information has excellent clarity with defined sets of rules for using text, pictures, colours and more for increased efficiency of the message (Jung *et al.*, 2018).

The principles also make provision for the messages to be simple, readable or decipherable for the viewers by focusing on the choice of words, texts, phrases, images, symbols, language and more. In addition to this, emphasis is provided with the goal of attracting the viewers, directing

their attention to the intended message and further keeping them hooked to it (Mann, 2018). The final principle of unity allows the messages and information to be consistent and promote togetherness. These functional principles of information design have played a significant role in improving information design and have also resulted in changing the world through a systematic and organised method of distributing information.

Apart from the functional principles, information design also consists of four cognitive principles that are associated with the conscious intellect of the viewers. These include *“facilitating attention, facilitating perception, facilitating processing and facilitating memory”* (Romanyuk and Smolin, 2019).

These cognitive principles enable information designers to focus on the psychological aspect of producing graphics and designs in order to further improve their efficiency and simplicity of the information.

Thus, information design has evolved and developed over the years and technological advancements have further paved the way for enhancements. It has become a crucial part of human society being engrossed in every aspect and enabling people to understand better.

Conclusion

In a nutshell, information design has been around since the early times and has enabled the world to understand and interpret information effectively by simplifying raw data and visualising it in multiple forms.

The use of graphics, images, symbols and more has significantly changed the way people perceive information. This has been engrossed in the daily lives and activities over the years making it a crucial part of people's lives.

The use of information design has been facilitated by the contributions of early designers and experts and is being continued till now.

The skills and capabilities of information design have progressed and improved over the years with the application of new methods and techniques. The advent of technology, on the other hand, has been one of the most significant and beneficial factors in the development of designs over the years. Technology has also contributed to the increase in the scope of information designs allowing it to be accessible and usable all around the world. Apart from that, culture also plays a major role in the advancement and application of information design as it has been continuously linked with the way people spend their lives.

Furthermore, the principles of information design have been the foundation for designers and experts while developing content for users allowing them to adhere to the most crucial factors. Both the functional principles as well as the cognitive principles have allowed the discipline of information design to be enhanced and aligned with the needs of the people. Thus, information design has significantly contributed to shaping the world and the people in relation to how information is perceived and processed.

References

- Bergemann, D. and Morris, S., (2019) Information design: A unified perspective. *Journal of Economic Literature*, 57(1), pp.44-95.
- Bullock, R., Gooch, D., Little, M. and Mount, K., (2018) *Research in practice: Experiments in development and information design*. Routledge.
- Condoirelli, D. and Szentes, B., (2020) Information design in the holdup problem. *Journal of Political Economy*, 128(2), pp.681-709.
- Durovic, M., (2020) Adaptation of consumer law to the digital age: EU Directive 2019/2161 on modernisation and better enforcement of consumer law. *Annals Fac. L. Belgrade Int'l Ed.*, p.62.
- Fardis, M.N., (2018) Capacity design: early history. *Earthquake Engineering & Structural Dynamics*, 47(14), pp.2887-2896.
- Jégou, L., (2019) Expanding the Sémiologie Graphique for contemporary cartography, some ideas from visual semiotics, art history and design. *Cartography and Geographic Information Science*, 46(2), pp.182-188.
- Jung, S., Asikoglu, O. and Simpson, T.W., (2018) A method to evaluate direct and indirect design dependencies between components in a product architecture. *Research in Engineering Design*, 29(4), pp.507-530.
- Makris, M. and Renou, L., (2021) Information design in multi-stage games. *arXiv preprint arXiv:2102.13482*.
- Mann, J.L., (2018) How Technology Means: Texts, History, and Their Associated Technologies. *DHQ: Digital Humanities Quarterly*, 12(3).
- Manson, S.M., (2020) The role of culture in effective intervention design, implementation, and research: Its universal importance. *Prevention Science*, 21(1), pp.93-97.
- Pearce, H., (2018). *Lines, Bars and Circles: How William Playfair Invented Graphs* by H. Becker. *The Deakin Review of Children's Literature*, 7(4).
- researchgate.net (2018) *Causes of mortality in the army in the East Florence Nightingale's ...* Available at: <https://www.researchgate.net/figure/Causes-of-Mortality-in-the-Army-in-the->

East-Florence-Nightingale-s-famous-rose-diagram_fig4_328528222 (Accessed: November 22, 2022).

Romanyuk, G. and Smolin, A., (2019) Cream skimming and information design in matching markets. *American Economic Journal: Microeconomics*, 11(2), pp.250-76.

Schieben, A., Wilbrink, M., Kettwich, C., Madigan, R., Louw, T. and Merat, N., (2019) Designing the interaction of automated vehicles with other traffic participants: design considerations based on human needs and expectations. *Cognition, Technology & Work*, 21(1), pp.69-85.

Srai, J.S. and Lorentz, H., (2019) Developing design principles for the digitalisation of purchasing and supply management. *Journal of Purchasing and Supply Management*, 25(1), pp.78-98.

Taneva, I., (2019) Information design. *American Economic Journal: Microeconomics*, 11(4), pp.151-85.

Taws, R., (2021) Death from Above in Minard's Napoleon Map. *Grey Room*, 83, pp.82-111.

Walden, A., Garvin, L., Smerek, M. and Johnson, C., (2020) User-centered design principles in the development of clinical research tools. *Clinical Trials*, 17(6), pp.703-711.