Research in Context Essay

By Haoming Huang

Student Name: HAOMING HUANG

Student Number: 2205249

Programme of Study: BA Graphic Design

Module: ADAD5003 Research in Context

World count: 2311

Tutor：Donna Williams

Can Graphic Design really save your life?

Introduction

Graphic design has evolved over a long period of time, from the cave paintings of 38,000 BC to the graphic design works of modern computers and tools that are being widely used nowadays, and the evolution of graphic design in the long history is not yet over and still human beings are exploring more possibilities of graphic design (Ellis and Ellis, 2018). In the evolution of graphic design, many attributes have been developed such as warning, education, business, communication, healthcare, art, etc. However, with the rapid development of the times, it has also triggered a lot of controversy, and this article will focus on the question of "Can graphic design really save lives?" by breaking down the question into two areas: warning and education, and discussing why graphic design can save lives. The article will find out the answer in the areas of traffic symbols, food labelling, and the quality of teaching and learning.

Warning

Graphic design in the field of warning has many contributions, the first introduction is the road symbol design. The road safety order is the main part of the road safety rules to a large extent related to the road drivers as well as pedestrians on the road life safety, so do road signs save lives on the road or do they add to the dangers of the road? According to a study (Bellini, Iaconis and Traettino, 2020), the misuse of road signs on roads can lead to unsafe

driving habits and violations, thus affecting the ability of signs to target road users violations, thus affecting the effectiveness of the signs in addressing potential risks on the road, which would imply that inappropriate use of road symbols can lead to a reduction in the safety of driving on the road, so are road symbols simply having a negative impact on road safety? Later in the article the authors mention that these are just the results when road symbols are set incorrectly, so what are the benefits of using road symbols correctly, the authors use the example of road speed limit symbols as an example of how correctly setting them can aid driver perception and help drivers to correctly analyse and assess route layouts and driving conditions to limit the occurrence of bad driving incidents and thus improve road safety, the article also mentions an experiment that they conducted on the subject of speed limit signs. We examined and assessed the management of the speed limits in order to harmonise roadside prohibitions and promote their optimization to enhance correct driving behaviour. It proves that setting the road symbols rationally in the right way, and can optimize the driving behaviours of the drivers and thus enhance the safety factor of the road. With the above information and a little understanding of the results of the correct use of road symbols and the results of the improper use of road symbols, the next step is to analyse the role of road symbols and their importance in further depth, (Ubongeh, 2023) lists a number of reasons as to why road symbols are important: "

1. Helping to promote road safety: The primary purpose of road signs is to improve safety for all road users. They provide important information about potential hazards, speed limits and traffic rules to help drivers make informed decisions on the road. For example, warning signs alert drivers to impending dangers such as sharp turns, pedestrian crossings or built-up areas.
2. Aids to traffic control: Road signs help regulate traffic flow. Stop signs, yield signs and traffic signals control the right-of-way at intersections, preventing conflicts and ensuring the orderly flow of vehicles. This is essential to reduce accidents and congestion.
3. As a guide for road users: Road signs provide direction to drivers, helping them to navigate and reach their destinations. Route signs, such as motorway shields and directional signs, provide clear information about which roads to take and how to get to a particular location. This is especially important for unfamiliar or out-of-town drivers.
4. Helps with speed regulation: Speed limit signs are used to set and enforce safe travelling speeds. They are based on factors such as road conditions, traffic density and potential hazards. Always observing the speed limit reduces the risk of accidents and saves lives.
5. Ensure pedestrian safety: Road signs also contribute to pedestrian safety. Crosswalk signs, school zone signs and pedestrian crossing signs inform drivers and pedestrians of the presence of pedestrians and the rules for safe interaction.
6. They help enforce legal restrictions: Road signs help enforce traffic laws. When drivers see regulatory signs such as "No Parking" or "No U-Turn", they are reminded of legal restrictions and law enforcement agencies can enforce these rules. This helps to maintain order on the roads.
7. It helps raise awareness: Road signs also provide basic information about nearby

amenities, services and facilities. Signs for petrol stations, rest areas, hospitals and motorway exits give drivers the opportunity to plan their journeys efficiently and access essential services."

Through the above content to understand the importance of road signs on the road safety then the road symbols specifically how to graphic designers through the design of road symbols on the road to attract people's attention to ensure people's safety, according to (Durand, 2023) the article explains in detail the role of each road symbols as well as the design concept to parking symbols, for example：

Fig. 1: STOP SIGN, How road safety signs save lives everyday - Traffic Safety, Traffic Safety Products, a Division of Eberl Iron Works, Inc, 2023

The designers used highly saturated, highly contrasting colours and bold fonts for the symbol to be noticed by pedestrians and drivers at the first time, together with high visibility reflective materials that reflect off the headlights and attract the attention of cars driving at night to see the symbol and stop driving at the first time. Although it is not possible to trace back to the traffic conditions before the road symbol appeared, you can imagine how much these designers have. Although it is impossible to trace the traffic situation before the road symbols appeared, you can imagine how much these designers have improved the traffic safety of the people.

Through the above content evidence analysis, in the end, whether road symbols can really save lives, the answer to this question is obvious road symbols convey traffic rules to people every day, reminding people to drive correctly to stay away from danger, road traffic signs provide more benefits than the current inappropriate road traffic signage, in addition to the current design of road symbols set up in each region there are The appropriate experts and regional government standards for reasonable and scientific settings, such as the UK government traffic construction website(Department for Transport, 2016) construction rules and website provides adequate construction rules of the standard, which compared to the previous traffic rules when the start of the less symbols improperly set up the situation occurs.

Secondly, graphic design goes beyond this in the area of warnings, we will delve into the necessities of life to find evidence of life-saving graphic design warning content, NHS.uk.(2023) gives figures that show that "In general, the recommended daily calorie intake

is 2,000 calories for adult women and 2,500 calories for adult men. " . According to (Global Nutrition Report | Country Nutrition Profiles - Global Nutrition Report, no date) the obesity rate for adult Mexican men in 2019 is 35.7% for women 27%. Obviously these numbers are decidedly unhealthy and what can graphic design do about it? According to an experimental study (Basto-Abreu et al., 2020), which showed that from 2016 onwards Mexican adults consumed 31% of their total daily calorie intake from snacks and beverages, the Mexican government approved a new law on food packaging in October 2019, which requires all food and beverage companies to include "excessive" warning labels on the packaging of products that contain more than the national health regulation values for all calories, sugars, fats, trans fats, or sodium. Sodium content exceeds national health regulations. After the law was passed, Mexican health experts found that by adding the "excessive" warning label, 36.8 kcal/person/day could be reduced, of which 23.2 kcal came from beverages and 13.6 kcal from snacks. The mathematical models used by the experts to calculate the prevalence of obesity five years after the implementation of the policy showed a reduction of 14.7 per cent, which is equivalent to a reduction of 1.3 million cases of obesity.
The impact of obesity on people's health is extremely serious and can lead to many diseases such as cardiac hypertrophy, malignant neoplasms, blood vessel blockages, liver disease, diabetes, sudden death, heart failure, etc. In addition, the increased respiratory stress due to weight gain leads to the inability to breathe on their own after a certain amount of weight is gained, requiring them to rely on a ventilator in order to sustain their lives. According to (Barquera and Rivera, 2020) some of the morbidity and mortality rates of diseases caused by obesity are cardiovascular diseases (20-1%), type 2 diabetes (15-2%), malignant neoplasms (10-8%) and liver diseases (7-6%).

If people can avoid this type of unhealthy food by seeing the calorie warning every time they shop, then this small warning sign can help to keep people away from the risk of obesity and obesity-induced complications, thus reducing the risk of obesity and thus reducing deaths caused by obesity, and by reducing the rate of purchase of unhealthy food, companies are urged to change the attributes of their bounty and introduce more healthy food.

Education

Graphic design has evolved to play an irreplaceable role not only in people's security, but also in education, such as illustrations in lectures, and pictures with text to create a better atmosphere for learning and thus promote enthusiasm among students, according to a study by Soleimani and Dunai (2021), during the Covid-19 period because of the limitations of on-line education led to a lack of enthusiasm among students, the study tried to help them create a better atmosphere through graphic design materials. The study (Soleimani and Dunai, 2021) tried to create a better atmosphere for teaching and learning through graphic design materials by using a set of common criteria for the use of colours, text, illustrations, pictures, video clips, soundtracks, and music along with the replacement of chapters of the course with cartoons and animations for the students, which led to a significant increase in the rate of student's participation. Graphic design can play a good achievement in education because it replaces the traditional rigid text and charts to entertain and teach at the same time the way of teaching, and pictures and quality colour-matching choices and excellent layout design

can help students easier to understand the content of the teaching to reduce the students' learning pressure and arouse the students' enthusiasm for learning. So how can graphic design save lives in education? As the quality of education improves, it will mean that the quality of graduating students will improve, which will in turn improve the quality of employees who will be employed in many important positions. Taking the quality of doctors as an example, improving the quality of doctors can to a certain extent reduce the number of misdiagnoses they make during diagnosis, leading to deaths of patients who do not receive the correct treatment. According to the statement conducted by Johns Hopkins University School of Medicine(1 in 3 misdiagnoses results in serious injury or death results in serious injury or death: study, 2019), data confirms that inaccurate diagnoses are the number one cause of serious medical errors. An estimated 40,000 to 80,000 deaths occur annually in U.S. hospitals as a result of misdiagnosis, and an estimated 12 million Americans suffer diagnostic errors in primary care settings each year, 33% of which result in serious or permanent injury or death." It is clear how important the quality of doctors is to the safety of people's lives, as the above information shows, but the varying quality of doctors can lead to a series of misdiagnoses leading to serious injuries and deaths, which could be altered if teachers at medical universities were to improve the quality of the students graduating from their universities by improving the quality of the teaching they give to some of their soon-to-be-doctor students, which is why many countries are lagging behind but investing in teaching. Because education determines the future of the country to a certain extent, and by adding graphic design to education to improve the quality of teaching, we can save lives that should not have been lost by reducing the number of stupid mistakes in some important professions.

conclusion

This article analyses how the evolution of graphic design has penetrated into many fields with the development of the times, and discusses how graphic design can play a role in these fields to save people's lives, in which we focus on graphic design in the warning aspect of people's lives in a common scene through a small symbol to make people as far as possible away from the danger of foreknowledge of the danger to save their lives. Not only that, this article also discusses how graphic design in education can improve the quality of teaching and learning so as to enhance the quality of graduates from schools to provide the market with higher quality talents so as to reduce the number of deaths in some important professions caused by mistakes in important diagnostics, including doctors for example, with the quality of employment in the profession of doctors to improve the quality of employment so as to reduce the number of such things happen to correctly save the lives of patients. The above discussion and evidence confirms the role of graphic design in people's lives to protect us from, anticipate danger and save lives at critical times.

Reference list

Basto-Abreu, A. *et al.* (2020 Bellini, D., Iaconis, M.C. and Traettino, E. (2020) 'Speed limits and road warning signs as aid for driving behavior,' *Transportation Research Procedia*, 45, pp. 135–142. Available at: https://doi.org/10.1016/j.trpro.2020.02.100.

) 'Predicting obesity reduction after implementing warning labels in Mexico: A modeling study,' *PLOS Medicine*, 17(7), p. e1003221. Available at: https://doi.org/10.1371/journal.pmed.1003221.

Barquera, S. and Rivera, J.Á. (2020) 'Obesity in Mexico: rapid epidemiological transition and food industry interference in health policies,' *The Lancet Diabetes & Endocrinology*, 8(9), pp. 746–747. Available at: https://doi.org/10.1016/s2213-8587(20)30269-2.

Durand, L. (2023) 'How road safety signs save lives everyday - Traffic Safety,' *Traffic Safety Products, a Division of Eberl Iron Works, Inc*, 1 June. Available at: https://trafficsafetyproducts.net/blog/post/how-road-safety-signs-save-lives-everyday.

Department for Transport (2016) *Road traffic signs, signals and road markings*. Available at:https://www.gov.uk/government/collections/traffic-signs-signals-and-road-markings.

Ellis, M. and Ellis, M. (2018) 'A brief history of graphic design,' *99designs*, 24 May. Available at: https://99designs.com/blog/design-history-movements/history-graphic-design/.

Global Nutrition Report | Country Nutrition Profiles - Global Nutrition Report (no date). Available at: https://globalnutritionreport.org/resources/nutrition-profiles/latin-america-and-caribbean/central-america/mexico/.

NHS.uk. (2023) *What should my daily intake of calories be?* Available at: https://www.nhs.uk/common-health-questions/food-and-diet/what-should-my-daily-intake-of-calories-be/.

Soleimani, B. and Dunai, L. (2021) 'The role of graphic design in perceived of enjoyment in online education,' in *Lecture notes in mechanical engineering*, pp. 327–336. Available at: https://doi.org/10.1007/978-3-030-92426-3_38.

1 in 3 misdiagnoses results in serious injury or death: study (2019). Available at: https://www.fiercehealthcare.com/hospitals-health-systems/jhu-1-3-misdiagnoses-results-serious-injury-or-death#:~:text=One-third%20of%20malpractice%20cases%20that%20result%20in%20death,the%20No.%201%20cause%20of%20serious%20medical%20errors.

Ubongeh . (2023) '21 Very Important Road Signs And Their Meanings,' *HSEWatch*, 28 October. Available at: https://hsewatch.com/road-signs/#:~:text=Poor%20understanding%2C%20negligence%20or%20none%20availability%20of%20road,who%20understands%20it%2C%20and%20use%20it%20obey%20it.

List of figures

Fig. 1: STOP SIGN, How road safety signs save lives everyday - Traffic Safety, Traffic Safety Products, a Division of Eberl Iron Works, Inc, 2023 Available at: https://trafficsafetyproducts.net/blog/post/how-road-safety-signs-save-lives-everyday (Accessed 26/11/2023)