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ROČNÍKOVÁ PRÁCA

Computer Graphic Design

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Declaration

I, Michal Špano, confirm that the work for the following term paper with the title: "Computer Graphic Design" was solely undertaken by myself and that no help was provided from other sources as those allowed. All sections of the paper that use quotes or describe an argument or concept developed by another author have been referenced, including all secondary literature used, to show that this material has been adopted to support my thesis.

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Introduction

"Design can be art. Design can be aesthetics. Design is so simple, that's why it is so complicated," says Paul Rand, a graphic designer. Computer graphic design plays an enormous role in our everyday lives. It affects us in daily tasks. A design is a way how we view every object around us. Influenced by the fast growth of technology, computer graphic design is one of the most important elements in the computer industry. Therefore, it happens to be important to be studied. This work will cover topics as follows: the history, classification, influence and the types of graphic designs.

I was introduced to this branch by my friend. He taught me the basic principles of utilizing and editing the workflow of designing. I am grateful to have been exposed to it. The reason I chose this topic is that since my first project in 2014 I have become highly interested in this branch. I am still interested up until the present day and continually work on my projects. What I admire the most about graphic design is that you are experiencing something new - something yet unknown. "The only source of knowledge is experience," says Albert Einstein. This mysterious feeling gives a special value to my work. While designing, there never occurs a situation, in which you are experiencing something already achieved. There is a huge variety of styles which you can utilize for your own preference. Some may say that they prefer a specific type over the other one. It truly depends on the personality of the editor. Moreover, it depends on the actual feelings and mood of the person editing. While having a bad, they will opt for more darker schemes, colours and the overall style. More darker themes will be prevailing. Whereas during a good day, they should choose lighter and more peaceful themes over the darker ones. Lighter colours, for instance, yellow, green or blue will be the eye-catching features. Graphic design plays a huge role in the competitive business environment. It is used to attract new customers via using fancy logos, business cards or websites. An easily memorable and recognizable logo is a requirement to obtain the identity of a successful company. Business environment depends on graphic design because it provides a way of communication with their audience. By the increasing demand and more companies entering the market, a huge competition is created between parties. By utilizing the features of graphic design appropriately, the company can grant many advantages over different parties. For instance, when children see a flashy and colourful design, it is more likely to attract them. Usually, companies use these strategies to reach new potential customers. Undoubtedly, graphic design is the best way to boost the sales of a company.

According to Marina Caramagno, Visual Designer at USEEDS, "Design is thinking made visual." Even for artists such as painters or musicians, spoken words are not enough to express their ideas and feelings.

I am sure that designers are considered to be artists too, but they are using software instead of canvas for painting. While working on a project, they implement their own emotions and communicate with others. By understanding the importance of graphic design, one may say that it serves as an important way to express yourself. Nowadays it is very important to be able to express your opinion. Many may find it difficult to carry out this process, but by graphic design, they can overcome this difficulty. It also provides us a way how to see and understand the background of a company, the philosophy or history. In the fields of business environment companies usually, implement symbols of the work there are doing in their logos, posters or business cards. They are called key symbols. For instance, a party that specializes in car engineering will contain symbols such as tire, steering wheel or an engine in their graphical execution. These key symbols are thought to help the customer to understand the differentiation of the given party. While understanding the importance of graphic design in our everyday life, we can surely declare that is a big part of every human being. Undoubtedly, it plays an important role in daily tasks carried by humans. In my view, it is important to be studied and understood by people of every race and nationality.

1 History of Graphic Design

The history of graphic design has a massive influence on the graphic design industry we know today. It has been evolving for decades to come to its final form. The history of graphic design is a story that spans the entirety of human existence. Therefore, knowing the history of graphic design makes it easier to understand the given topic. Additionally, new ideas are inspired by and derived from history. (www.customlogos.com)

1.1 Roots of Graphic Design

When the first recorded visual interactions emerged, graphic design developed around 15,000 BC. Such pictographs and icons are found in southern France's Lascaux caves, depicted below (img. 1). More than a thousand years forward pace, and you will find the Monument to the Blau. It is the first known artefact to use words and pictures thereon. For example, these constructed objects are far from what we think of today as graphic design, but they have helped spark the idea of placing pictures on textures, taking us on the road to items like sketches, signs, banners and more. (www.customlogos.com)

Img. 1. – The cave art painting of the Lascaux Cave

1.2 The Influence of Invention of Paper

A Chinese man's discovery of paper in 105AD led to the idea of printout. Nearly a millennium later (in 1045AD), mobile type was developed, which enabled independent printing of characters. This led to quicker solutions for printing, and more versatile, more efficient systems. By 1276 a paper mill arrived officially bringing printing to Europe in Fabriano, Italy. It was in 1450, two hundred years after the introduction in Europe of the first paper mill, that the method for printing type in books was considered to be perfect. Soon after this, in 1460, the first drawings in a printed book appeared. Seventy years of printing have passed until Claude Garamond in 1530 opened the very first type foundry that created and sold fonts to printers. In 1530, when Claude Garamond founded the very first type foundry that created and sold fonts to printers, seventy years of printing had passed. (www.customlogos.com)

1.3 Invention of the Gutenberg Press

In 1439, Johannes Gutenberg brought the moving type to Europe, introducing mass communication to Western culture and changing civilization forever. With the Gutenberg press, people no longer needed to rely on scholarly book reproductions, which were highly ineffective. The Gutenberg press paved the way for more industrial product applications that began as we know it in the age of graphic design. To demonstrate a better visualisation of the very first model of the Gutenberg press (img. 2). (www.customlogos.com)


Img. 2. – Gutenberg press model

1.4 The Growth of Graphic Design During Industrial Revolution

In the 1760s the Industrial Revolution struck and began a new era for graphic design. Innovative technologies started to pop up at an unprecedented rate; including the lithography process, which was a printing technique that helped cut costs.

Around 1800, the Industrial Revolution also introduced the printing press, a tool that not only cut labour by 90% but also increased the document size that could be written. (www.customlogos.com)

1.5 Importance of Graphic Design in 1900s

Graphic design had worked its way into business practices since the Industrial Revolution, and its use erupted in the 1900s. Frank Lloyd Wright wrote "The Art and Craft of the Machine" in 1901, which included the fundamental principles now cited in modern design. With the rise of the advertisement and colour printing industries, companies began creating logos to help mark their company. With a custom logo design, the brand of your company has become more than just a name - it has become a striking and memorable piece of art, with colour, shape and composition all working towards making a consumer impression. Naturally, in advertising and other industries, graphic design has become widely used, marking beautiful designs on everything from posters to t-shirts, record covers and more. Invention and latest releases of modern computer technology in the late 1900s introduced new tools for designers. They began using digital tools such as Photoshop, which was first released in 1990 to create their images. To compare the enormous growth, an early interface of the very first Photoshop release is provided (img. 3). This program is still considered to be one of the most revolutionary tools of all time. In summary, such digital tools were and yet still are revolutionary. (www.customlogos.com)
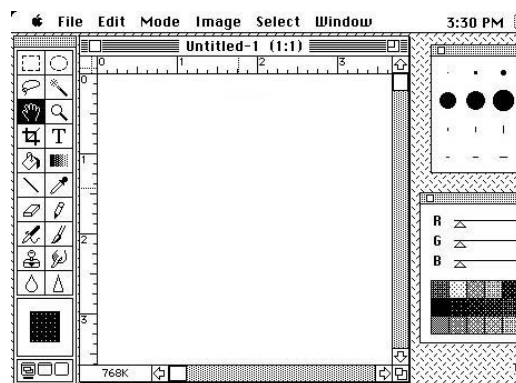
Img. 3 – interface of an early release of Adobe Photoshop (1990)

2 Types of Graphic Design

Graphic design uses graphic designs to solve problems and express concepts through typography, animation, light, and shape. There is no way to do that, and that's why there are several styles of graphic design, each with a speciality field of its own. Although they often overlap, different skillset and design strategies are needed for each form of graphic design. Most designers specialize in one type; others concentrate on a selection of common, linked forms. Due to the fact that the industry is constantly changing and evolving, designers need to be adaptable to easily change or add further items. (www.99designs.com)

2.1 Advertising Design

The professional work of graphic designers is highly needed to run a successful brand in the marketing industry. Creative designers apply the principles of design to produce concepts of brand logos or business cards. Visual advertising appeals to consumers and businesses who rely on good graphic design to take advantage of customer purchasing decision.

Such styles of brands collaborate with different media to best fulfil their clients' needs and desires. Social media graphics, email marketing templates and content marketing are just a few marketing and advertising design's digital uses. Examples of advertising graphic design: brochure design, social media graphics, email marketing templates, infographic design.

(www.99designs.com)

During my study, I obtained a great example of advertising design (img. 4). It easily catches the attention of the reader because the harmonic use of colours appeals to us in an aesthetically pleasing way. It depicts an essential object for the company. This enables the reader to understand the aim of the business. This effect corresponds to an effective use of graphic design in the advertising industry.

Img. 4 – example of graphic design

2.2 Environmental Graphic Design

Environmental graphic design also known as EGD uses design disciples in order to gather people and create an unforgettable experience. It creates a story to a given place which is used to evoke an emotion in a visitor. Elements such as colour, material, illustration, pattern are aligned altogether to cause a specific emotion or an experience. These elements are combined with basic principles of archaeology which could vary based on the story that the building wants to express. A visual aspect in the form of wayfinding or communication identity is obtained by combining these two elements in an appealing way to the human eye. Wayfinding includes signs, visual cues or signatures which serve as an indicator to remind visitor, the importance or the background of a given place. However, the most important aspect of EGD is to serve as a communication medium. In order to create a sophisticated and effective example of EGD, both graphic design and architecture should be aligned in a harmonic flow.

Examples of EGD are as follows: exhibitions, stadium branding, event spaces and murals. (www.segd.org)

While doing research, a very interesting light installation caught my attention.

The place depicted (img. 5) shows a very effective alignment of both principles of graphic and archaeological design. It happens to be an indoor park for children. In my view, the light installations may have a positive effect on children and could evoke happiness.

In conclusion the main goal of the place is to function as a meeting point with a prevailing friendly atmosphere, which is a suitable environment for children.

Img. 5 – installation featuring environmental graphic design

2.3 Publication Graphic Design

Traditionally, publishing design relates to print media such as novels, journals, websites, and so on. Like many other graphics design sub-sets, however, highly influenced by technological progress have created for designs new opportunities for the potential use. Publication design applies features of art for instance typography, colour or pattern. Designers align these elements altogether considerately to achieve a content perceived visually on a digital platform. This includes e-books, email newsletters, magazine layouts, catalogues, newspapers. (https://learn.g2.com)

Given the example of the effective use of publication graphic design (img. 6), one can conclude that the harmonic flow of the colour scheme and proper alignment thoughtfully combined together creates a beautiful catalogue. The vibrancy of colours shown appeals in a pleasing way. The typography picked adds a special value to the overall feeling of the artistic execution of publication graphic design.

Img. 6 – Doublair catalogue

2.4 Motion Graphic Design

"What does motion design stand for?" one might ask. This type of computer design has become a reasonable option for enthusiastic designers. Motion design is the generation of digital graphics pieces that create the effect of motion or rotation illusion. Traditional movement design applications can be found when movies, TV shows and news productions in their opening scenes. Nowadays there are examples of motion design on all digital platforms such as GIFs, applications, website design, etc.

Motion graphic designer – These designers are trained in traditional graphic design and integrate other elements into their existing design knowledge. Motion design is also highly referred to video production or filmmaking industry. These young designers have the ability to use animation to enhance stagnating graphics which result in stunning applications. Most of the motion design is applied in platforms such as video games, internet banners, GIFs and animated texts. (https://learn.g2.com)

It is important to mention the significance of motion design in today's development of technology. Google, the most known company in the 21st century uses the features if motion designs and brings a favourable interface of combination of seamless animations and well-composed platforms to the consumer. During my study, I observed a great application of such type of design. Elements of material design (img. 7 and img. 8) depict objects mainly made of light-themed colours. The main scene is overlaying a grey background scene, which adds an artistic value to the overall product.

The toning and picking the correct tint are the most important element to produce a successful material design. Usually, the objects depicted only consist of simple lines or shapes. By this, the designer is enabled to create a smooth interface to catch the eyesight of a customer. Such examples are the icons composed of motion design features (img. 8). In my view, google's material design is an excellent illustration of how simple and yet still popular creativity of a designer could get.
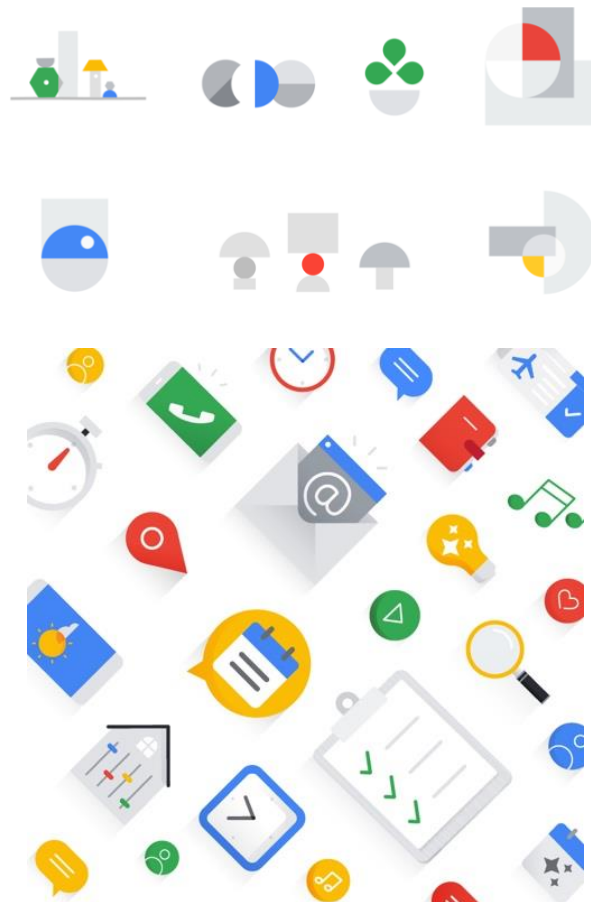
Img. 7,8 - Google's material design

3 Understanding Colours

"Colour is the lifeblood of graphic design. White light is made up of waves of different lengths; which colours we see depends on the wavelengths of light that reach our eyes. An object looks a certain colour to us because its surface absorbs some wavelengths and reflects others. In the final analysis, an apple looks red because it reflects only red light – all the other wavelengths are absorbed by the surface of the given object," stated Caldwell (2019).

3.1 How Do Colours Make us Feel?

According to Caldwell, 2019, "Humans react powerfully on an emotional level to colours." Research has shown that the reactions people have to colours are consistent: for example, warmer colours (red, orange, yellow) usually activate, whereas cooler colours (blue, indigo, violet) calm down. Designers use colours to elicit a reaction that will chime with the word of their viewers. Nevertheless, the response of a person to colours in a picture can be determined by many other influences, and colour psychology is only one factor to consider when designing a beneficial colour palette. (Caldwell, 2019)

3.2 The Symbolism of Colours

While meanings vary enormously, colour is used to symbolize universal ideals all over the world. For a better interpretation, an image consisting of colour definitions is given (img. 9). One can conclude by examining the different meanings of colours as follows: red, for example, implies love and passion, but it is also the colour of violence, war and revolt. Red is the luckiest colour in China, whilst it is favoured by mourners in South America.
In the West, red light is a sign of warning, and a "red rag to a bull" is a describes provocation. Designers should always look carefully and research the significance of their chosen colour scheme to examine any unique associations that their target audience might have.
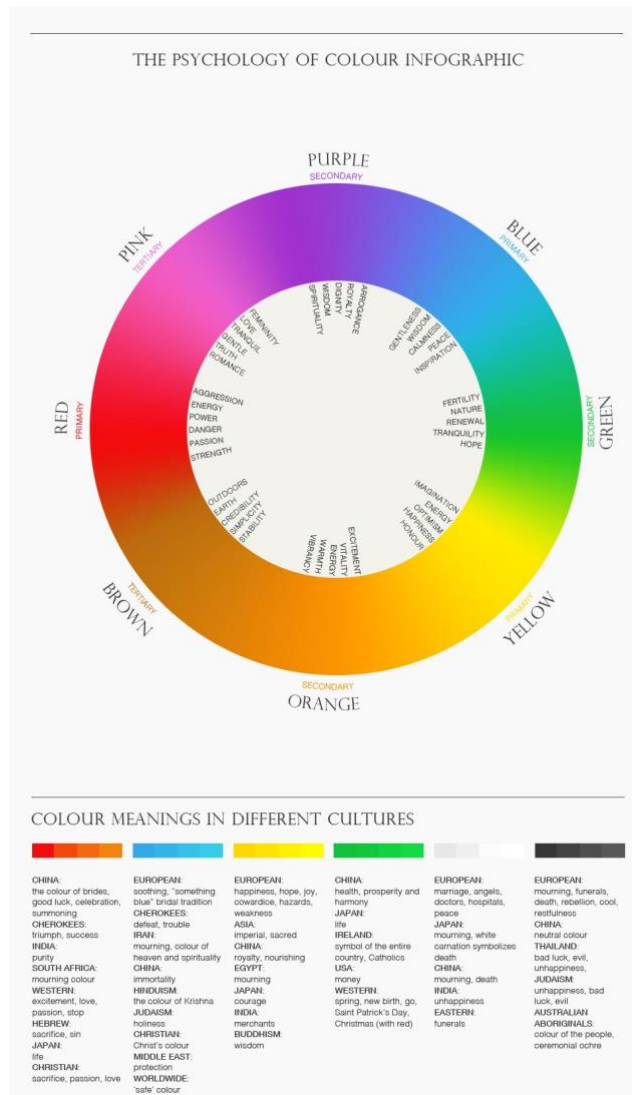
Img. 9 – the psychology of colour infographic

The illustrated picture depicts the colour wheel principle. It says that by going through a prism, light can be transformed into constituent colours. Then, the spectrum can be represented as a 12-section circle demonstrating how the colours respond to each other. The similar the two colours are, the more they can harmonize when brought together. The further they are from each other, the greater the contrast will be. (Caldwell, 2019)

4 Author's Experience

As already referenced in the introduction I do consider myself to be a graphic designer f and that is the main reason I chose this topic. To provide a better illustration of my understanding of graphic design an artwork of mine is provided (img. 10) to conclude and contrast the different traits of graphic design. I included 5 works in the given example. In summary, my designs feature mainly characteristics of motion and material design. By this, I want to depict the essential object while using lighter colours in the given canvas. In my view, lighter colours in such case evoke harmony and concordance.

Ultimately, it features a natural grey-tinted shadow along the edge of the illustration, which gives a touch of balance to the overall scene. Henceforth it creates a pleasant and enjoyable experience to the sight of the customer.

Img. 10 – author's representation of graphic design

5 Conclusion

Computer graphic design plays an enormous role in our everyday lives. In this work, I was able to gather information about the history, different branches and many other important facts. By doing so I would like to spread the awareness of fully understanding the significance of graphic design. Graphic design is an art too. To view art in the correct way, one has to analyse and understand the background of the given case. As explained by Moore, 2016, "You see things as you see them with your eyes but you experience them emotionally and viscerally as if it was ecstasy and a sense of total unity and oneness." In conclusion, the aim of my work was to encourage young and passionate designers to understand the workflow of graphic design and inspire them to find their own way of approaching design. In my view, today's society only follows the so-called mainstream. By doing so, enthusiastic designs lose their potential and follow the main understanding of graphic design. As a graphic designer myself, I can surely conclude that finding your own style could be trouble. I suppose that by understanding the background of given structures and tools, one can determine the specializations and therefore achieve its own and unique style of approaching the world of graphic designers. Furthermore, it is important to analyse the significance of competition in today's graphic industry. For any business that wishes to beat the competition in the market, graphic design is critical. You must be innovative to stay ahead of rivals on the market.

Develop contents that answer an idea, solve a problem, or innovatively relieve a painting point. Graphic design can be used to empathize with the viewer by showing the audience what a life looks like with your product, service or advice. By achieving a particular sense of style right alignment of features of graphic design, competition could be easily overcome. Designers have to put a message in their work, a part of themselves. This can be achieved by fully analysing every small detail of their workflow. Thus, they can produce an innovative work of art which is highly admired by the demand of every starting company. Graphic design parts created with care will help boost sales. People are attracted to anything that's special in architecture. They get a quality design post. The message may be that the company that owns the development provides goods or services of high quality. Graphic design transmits to your audience more than just words. Only simple design elements such as font choices and colour schemes will help to represent your message. Although the message of all your business graphics can vary greatly, they should all tell the same story about your brand.

With a branding guide in place, you and your team will be able to choose design elements that tell the same story and ensure the brand look consistent. On the whole graphic design creates a psychological role that is essential for the daily life of people.

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