THE PHILOSOPHY OF MODERN GRAPHIC DESIGN

A FILOSOFIA DO DESIGN GRÁFICO MODERNO

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Abstract: The modern world has undergone significant changes due to the spread of the SARS-CoV-2 coronavirus disease. The pandemic has affected digital information processing technologies over the past three years. Numerous graphic design professionals have faced the challenge of working remotely in isolated conditions, prompting designers worldwide to seek new methods to combat the COVID-19 pandemic. This study aims to conduct a literature review based on analyzed resources using design technologies and compare them with traditional and graphic methods of information processing based on modern information technologies. Based on the literature used in the article, it was essential to establish the interdependence between philosophical teachings and design technologies. The study examines design practices from three countries - the United States (New York and Brooklyn), the Netherlands (Amsterdam), and the United Kingdom (London). The authors compare design solutions regarding the rules of social distancing during the pandemic. The literature review includes literary sources and models taken from the official website of the "Dezeen - Architecture and Design Magazine." Based on the analyzed literature and reviewed models, the authors investigated the specific feature of combining traditional design with a graphic design based on the hyperlocal micro-market model.

Keywords: Theories of graphic design origins. Design solutions. Philosophical doctrine. Traditional and graphic design.

Resumo: O mundo moderno passou por mudanças significativas devido à disseminação da doença do coronavírus SARS-CoV-2. A pandemia afetou as tecnologias de processamento de informações digitais nos últimos três anos. Inúmeros profissionais de design gráfico enfrentaram o desafio de trabalhar remotamente em condições isoladas, levando designers de todo o mundo a buscar novos métodos para combater a pandemia do COVID-19. Este estudo tem como objetivo realizar uma revisão de literatura com base nos recursos analisados usando tecnologias de design e compará-los com métodos tradicionais e gráficos de processamento de informações baseados em modernas tecnologias de informação. Com base na literatura utilizada no artigo, foi fundamental estabelecer a interdependência entre os ensinamentos filosóficos e as tecnologias de design. O estudo examina as práticas de design de três países - Estados Unidos (Nova York e Brooklyn), Holanda (Amsterdã) e Reino Unido (Londres). Os autores comparam soluções de design em relação às regras de distanciamento social durante a pandemia. A revisão da literatura inclui fontes literárias e modelos retirados do site oficial da "Dezeen - Revista de Arquitetura e Design". Com base na literatura analisada e nos modelos revisados, os autores investigaram a característica específica de combinar o design tradicional com um design gráfico baseado no modelo de micromercado hiperlocal.

1.   Introduction

The influence of many factors of modern communications and visual information expression opens up many new opportunities for applied research that can be used in graphic design with the help of computer technologies. The research into new practices and methods establishes a practical significance and managerial importance, imposing new requirements and prospects on contemporary designers, who must continuously enhance their professional skills (Wu, S., 2020).

Some multidimensional design studies encompass the main goal of the modern world, namely:

- transitioning from traditional concepts and existing thinking habits to more sophisticated and innovative ones;

- addressing numerous public needs;

- mastering new phenomena and the characteristics of real-time development (Wu, S., 2020).

Furthermore, the ongoing research on the driving force behind the new trend in graphic design allows for the integration of conceptual connotations from different disciplines with various art forms and media files, opening new possibilities for combining cutting-edge multimedia technologies with deep innovative thinking (Espín, P. V., & Gómez, J. D. C., 2020).

The practical experience over the past five years has demonstrated that the remarkable capabilities of graphic design through computer technologies enable its combination with various areas of human activity, environmental preservation, and healthcare. Recently, after humanity faced the problem of the spread of the SARS-CoV-2 virus and the associated COVID-19 disease in 2020, many designers from around the world have paid attention to the fact that the design of built-up areas and urban spaces can be improved for the benefit of society. However, to equip such spaces with all the necessary comforts, designers needed to fulfill a series of tasks using graphic design to create digital graphical models that could be implemented after coordination with relevant authorities (Lima, H., 2020).

From a philosophical standpoint, the theory is based on the laws that explore the relationship between thought, existence, and the understanding of matter. Design theory is an

organizational knowledge capable of motivating actual, rigorous, lawful rules as a practical discipline compared to more traditional and older fields. The nature of modern graphic design prompts the artwork to occupy a proper place among contemporary aesthetic contexts, as it expresses the human need for this valuable model that reflects culture and consciousness. The entire product being discussed should be designed to enjoy its content.

Since the emergence of artificial intelligence in graphic design in 2016, it has become a severe threat to the traditional graphic design industry and its creators. In this critical situation, the future development of the traditional graphic design industry has become a concern for many people, especially graphic designers. Modern graphic design is based on future research utilizing artificial intelligence, which includes four main aspects:

- multidimensional execution of graphic design;

- integration of new technologies into the graphic design;

- "interdisciplinary" talent cultivation and "interdisciplinary" talent development; positioning and promotion of graphic designers. (Wu, S., 2020).

2.   Theoretical framework and literature review

The creation and interpretation of philosophical doctrine theories are interconnected with graphic design, as the definition of methodological principles can help to focus on the historical background of the design origins. Such circumstances can include the historical level of production, technology, and experience and the identification and interpretation of fundamental philosophical theories (the theories based on laws that explore the relationship between thoughts, existence, and knowledge). The aggregate complex of these circumstances allows for the formation of contemporary design, which can be based on multiple theories for its dissemination. This complex employs various approaches and software such as Adobe Illustrator, Adobe Photoshop, Adobe InDesign, CorelDraw, and others.

The main theories, all with different approaches, are discussed below:

- 1st theory - an intellectual vision and a holistic system of knowledge that includes several concepts and relationships on the studied topic and a type of expression that connects ideas with perception.

- 2nd theory - a theory gains its validity only from the sincerity of the results it can achieve at the application level, which is the essence of the design idea.

- 3d theory - a collection of interactive relationships between the lexicon and concepts that interpret and describe a subject.

- 4th theory of conceptual knowledge base, where one side represents conceptual knowledge, and the other represents its application.

Based on the aforementioned theories, Al-Husseini, I. J. K. A.-Y. (2017) developed his own concept with the creation of fundamental approaches to graphic design:

- The descriptive theory proposes new solutions to specific problems and, at times, the creation of design theory.

- The experimental theory offers measures that determine what to avoid in design.

- The critical theory evaluates the world of construction and its connection to the society in which it exists.

Now let us take a look at the top programs for graphic design:

Adobe Photoshop is software that allows graphic designers to edit photographs. It is one of the most popular software tools on the market, offering extensive possibilities for graphic design.

Adobe Illustrator is software that enables the creation of illustrations, page layouts, company logos, website layouts, and more through its graphic design tools. The program is also standard in the field of vector-based tooling.

Adobe InDesign is a software tool for creating publications, providing capabilities for creating magazines, informational brochures, which can be exported in PDF and HTML formats. Additionally, this tool is user-friendly and requires less training time than Adobe Photoshop and Illustrator, allowing users to combine text and graphics to achieve the best results quickly.

CorelDraw is a graphic suite package with several professional-level functions, offering a user-friendly and accessible interface. The suite's multiple programs provide advanced editing capabilities.

Among the drawbacks of using Adobe Photoshop and Adobe Illustrator software are the following:

- Expensive regular fees for users (for Adobe Photoshop, a subscription costs $33.99 per month for a license, while for Adobe Illustrator, a subscription costs $9.99 for personal use and $33.99 for corporate use).

- At first glance, many functions may seem complicated and confusing (a large library with resources for creating your own design ideas with a wide range of functions).

- The programs offer support for raster and vector images (SVG), which can be more expensive than other vector graphic design tools, takes up a large amount of space on the personal computer, etc.

CorelDraw software is considerably more expensive but is considered the most professional tool for creating and showcasing design ideas. A CorelDraw subscription may be available for a free 15-day trial version, and the full product version can cost $474 with a 30-day money-back guarantee. Additionally, there is an option to purchase the product for $199 for an annual subscription or $17 per month.

The literature of the last five years is considered a study of the philosophical doctrine of the current state of graphic design. The examination of graphic design is based on theories (Table 1) perceived by the designer as a model. Such theories represent a solid area of knowledge that reflects the process of designing toward homogeneity in a single field to experimental significance, as well as deep structural relationships (Inada, D. M. 2020).

Table 1. The main philosophical doctrines theories of the graphic design research

Theories of philosophical research in graphic design	
Procedural recognition	**Procedural definition**
Theory: the variables of concepts can be quantitatively related to each other and explore how these relations move from concepts and patterns to reach a specific knowledge base.	**Design theory:** a set of relational concepts based on the cognitive, functional, and aesthetic pillars of the design idea that need to be built upon and disseminated at the applied level with results displayed.
Design theory: direct modeling, where the design idea is considered. This idea is based on the value of its attractiveness and the strength of its utilitarian and functional connotations. These connotations can affect people's daily life.	**Graphic design:** visual communication and organizational activities are carried out with the help of signs, symbols, words, and images to achieve the exchange of information between people in the modern world.
Design theory: organizational knowledge that is able to motivate existing legal rules to be strictly followed as a practical discipline compared to more traditional (legacy) areas, as it can provide a relational database.	**Graphic design:** the development of visual ideas formulations designed to demonstrate traditional methods of printing or display. Artistic endeavors are processes of organizing formal relationships between elements and design vocabulary to align aesthetic and functional characteristics following the purpose and goals of the design to be achieved.

	Graphic design: visual communication activity that is achieved through the designer's application of cognitive theories and the ability to visualize, imagine or innovate and express various design ideas to create interdependent interrelationships between elements and lexicon.

Source: Inada, D. M. (2020). Design Theories and Their Relationship to the Applied and Directing Field of Contemporary Graphic Art pp. 738-739.

The creation and interpretation of design theories are connected to the philosophy of design and specific methodological principles of working with reality, driven by the fact that the art of design is shaped by its historical circumstances and an understanding of fundamental philosophical principles. Various theories inform the design to circulate different approaches with numerous applications.

In its advanced stages, conscious human action results from development and a thorough understanding through the connection between mind, action, and matter. Accordingly, the design process acquires its creative, aesthetic, and functional characteristics by deriving applications from theory. From a philosophical approach, the theory is grounded in laws that explore the relationship between thought, existence, and the awareness of matter (Taha, R. I., 2021).

During the COVID-19 pandemic, many designers worldwide started researching and designing new models to address everyday challenges in isolation settings. The environmental graphic design is being implemented as a tactical step to counter the spread of Covid-19 in crowded centers and commercial facilities in the downtown area (Prahara, G. A., 2022). However, in creating these projects, designers have repeatedly emphasized how the philosophy of human existence is formed alongside the design process (Lima, H., 2020).

The situation with COVID-19 pandemic has created challenges in several aspects. One of them is an urban design, which has begun to produce strategies for preventive measures to avoid the spread of COVID-19. At the same time, designers also think about all the necessary aspects of comfortable and convenient insulation carrying for everyone. Primarily, design solutions focus on creating new progressive interiors of indoor spaces (dwellings, houses, etc.) and outdoor spaces (public places, urban transportation, etc.) involving computer technologies and appropriate software (Gargiulo, C., 2020).

The pandemic has transformed the perception of public spaces and prompted reflection on how public space can be transformed, stimulating the contemplation of designers and architects

(Vaca Salazar, J. C., 2021). For this reason, some authors (Espín, P. V., & Gómez, J. D. C., 2020) argue that it is essential to study and measure the changes over the following months and years to offer possible solutions for strategies during the COVID lockdown.

3. Research design and methods

This research **aims** to conduct a literature review based on analyzed resources on the use of design technologies and compare it with traditional and graphic methods of information processing based on modern information technologies. The paper uses the literature to identify the interdependence between philosophical doctrines and design technologies as illustrated by the COVID-19 pandemic.

The following tasks need to be accomplished to achieve the set goals:

- To conduct a literature review on the use of graphic design.

- To familiarize oneself with the fundamental philosophical theories underlying the origins of graphic design.

- To conduct a literature review on the latest and innovative technologies in the use of modern graphic design.

- To analyze several contemporary design models using official journals.

- To conduct a literature review on the use of graphic and urban design in the context of the COVID-19 pandemic.

- To establish the relationship between philosophical doctrines and the utilized design models.

In this study, the authors conducted a literary analysis based on designers' practices from the United States, the United Kingdom, and the Netherlands. The literature review includes design projects from companies such as Amsterdam "Mideamatic" Art Center, "Shift Architecture Urbanism," "Pentagram," and "Isometric Studio," which were taken from the official website of "Dezeen - Architecture and Design Magazine."

The methodology used for writing this article is exploratory. It is based on research of theoretical and design studies that are centered around the design theme of the COVID-19 pandemic. The theoretical and design elaborations will be aimed at correlating with the philosophical doctrine of graphic design during the pandemic.

4. Results

A.   Research of the new design idea based on the experience of designers from different countries.

The Netherlands. Amsterdam. Individually designed greenhouses for restaurant chains.

The consequences of social isolation have impacted architecture, design, and art. For example, in the Netherlands during the COVID-19 pandemic, numerous design solutions were developed to provide people with comfortable and safe indoor and outdoor conditions during isolation. One such example is the "Mideamatic" Art Center in Amsterdam, which organized an unusual dinner experience adhering to social distancing. The visitors could sit in their own greenhouse, completely isolated from others (Block, I. 2020).

The pentagonal greenhouses on the canal's edge accommodate a pair of visitors, each sitting facing the other at a table, as shown in Figure 1. These dining capsules are simultaneously separate and personal yet visible and public. Plant-based main course menus are served by servers using long wooden boards, allowing them to deliver food to the table without entering individual greenhouses (Passos, V., & Machado, M. C. O, 2022).

Figure 1. Design of the restaurant chain's individual greenhouses

Source: Block, I. (2020). Individual greenhouses let guests dine at a distance during pandemic

The Amsterdam Art Center hopes this concept will serve as a solution and enable other restaurants and cafes to find safe ways to conduct business during the COVID-19 pandemic. Servaas commented: "We see how some other restaurants around us, inspired by us, are trying to create their own versions of our model, and we're actually very happy about it. New ideas inspire

us, and we love experimenting with the new concepts and sharing them with others as soon as they become more widely known."

Social distance on the food market.

Dutch studio "Shift Architecture Urbanism" has developed a model for a food market amid the COVID-19 pandemic, where people can purchase fresh products without coming into contact with each other. A "Shift" is one of many architectural and design studios exploring strategies to combat the Coronavirus, although most focus on healthcare. One such solution is the hyper-local micro-market, consisting of a public market network. In these markets, customers can buy meat, fish, dairy products, fruits, and vegetables at a safe distance from each other through marked-out sections that ensure the avoidance of COVID-19 transmission risks (Frearson, A., 2020).

The graphic design of the hyper-local micro-market concept features a grid of 16 squares that can be easily installed in public squares or locations within any city. It will allow people to purchase goods on-site while adhering to social distancing rules. The standard spatial structure of the micro-market, as shown in Figure 2, consists of a grid with 16 squares aligned with three market stalls, each offering different types of products and goods.
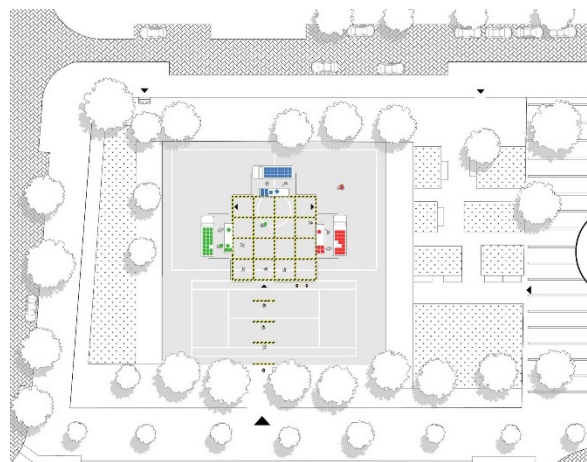
Figure 2. Design of the hyper-local micro-market concept

Source: Frearson, A. (2020) Shift Architecture Urbanism designs social distancing into the food market

The grid gets stuck to the sidewalk and separated by standard safety barriers. It has one entrance and two exits. Only one person is allowed in each grid cell to maintain social distancing. The grid can accommodate a maximum of 6 people to allow for mobility, as shown in Figure 3. These rules are explained at the micro-market entrance, where a queue is on the sidewalk. The

shops will offer packages instead of single products to limit the time customers take to pick up the goods and products they need (Anggraini, S. P. 2021).

Designer Thijs van Bijsterveldt and architects Oana Rades and Harm Timmermans state the following: "Even with the use of individual masks, it seems very difficult, if not impossible, to eliminate the risk of infection at traditional fresh food markets. Social distancing rules are challenging to control, and many people touch the same products."

However, the designers and architects claim that a similar solution for market operations can allow customers to purchase products while adhering to social distancing rules. The "Shift" proposal is based on the idea that existing food markets can be divided and dispersed across local areas, referred to as "micro-markets capable of operating in hyper-local spaces."


Figure 3. An example of a hyper-local micro-market design concept using a graphic design

Source: Frearson, A. (2020) Shift Architecture Urbanism designs social distancing into the food market

Designers and architects commented on this as follows: "The concept involves breaking down large markets into hyper-local micro-markets that can be concentrated locally throughout the city. It will allow them to remain open for a longer time." They hope that their system can be implemented in practice. However, they emphasize that for successful market management, it needs to be controlled by the city or municipal council to ensure that various products are available daily.

The United Kingdom. London. Social picnic blanket for COVID-19 after a lockdown.

London-based designer Paul Cocksedge has created a special blanket called "Here Comes the Sun" (Figure 4). This blanket allows users to adhere to the rules and norms of individual protection, considering the restrictions during the COVID-19 pandemic and after the lifting of outdoor restrictions (Hitti, N. 2020). The design consists of an open-source pattern that features a looped section in the shape of a circular outline with four separate fabric pieces cut into individual circles, which can be placed around the outline at a distance of up to two meters from each other. The blanket is designed to maintain a two-meter distance in social gatherings or crowded public spaces.
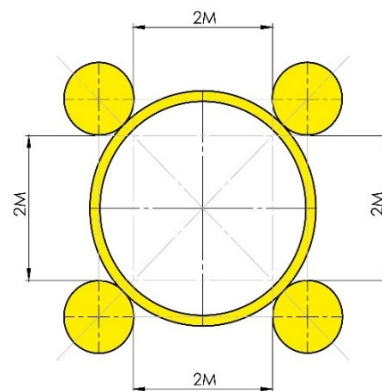
Figure 4. Design of a social-distancing picnic blanket.

Source: Hitti, N. (2020). Paul Cocksedge designs social-distancing picnic blanket for life after lockdown.

The idea came to the designer when Paul walked and felt the need for social interaction while spending time with people. However, the designer, who constantly works with measurements and dimensions, faced a problem related to interpreting the size of such a blanket: "It adds concern to our future interactions. It's very easy to make a mistake with two meters, especially when we are reconnecting with friends and family. It will be difficult to remember to maintain the distance."

The United States of America. New York City. High-Line Park during COVID-19.

The graphic designer Paula Scher designed the "High-Line" park layout for visitors after the lifting of COVID-19 restrictions, featuring a park with 1000 green marker dots drawn as markers for social distancing (Gibson, E., 2020). The park was closed at the beginning of the pandemic, but four months after its closure, it reopened with a one-way system. The park design is shown in Figure 5.

Paula Scher is the principal at "Pentagram," which designed the spots to cover benches, seating, and walkways in the urban park at recurring intervals, signifying a safe distance between visitors. The spot markers on the created pathway along the elevated park are arranged in rows that expand as the pathway widens.

As Scher explained, "The dot markers help visitors gauge the path ahead and should be placed on the path as it expands in space." Additionally, she also developed signage with corresponding symbols at specific points, indicating three main instructions:

- Maintaining a six-foot (two-meter) distance from others.

- Wearing personal protective masks.

- Moving in one direction.

Figure 5. High-Line park design

Source: Gibson, E. Paula Scher covers High Line in green dots to encourage social distancing (2020)

The park was made accessible only with one-way traffic through one entrance. In contrast, before the pandemic, it was possible to enter from different exits, which served as an exit zone during the pandemic. Paula Scher commented on this as follows: "The circle pattern is capable of organizing space and simplifying social distancing for visitors. It indicates where to walk and stand in line while they wait to enter the park."

Brooklyn. Recommendations for visiting the museum after the COVID-19 pandemic.

The Brooklyn-based design firm "Isometric Studio" has developed a set of recommendations to help museums reopen safely after the Coronavirus. These include adding signs to encourage social distancing and using masks as entry tickets, as shown in Figure 6.

Figure 6. Recommendations for visiting a museum as an entrance ticket

Source: Klein, K. (2020). Isometric creates toolkit for safely reopening museums following the pandemic.

A toolkit for Museum reopening includes design strategies and considerations outlining design strategies museums can use to prevent the spread of infection (Klein, K., 2020).

"Audiences are seeking constructive ways to participate in the ongoing fight for justice," Isometric Studio said. "Museums have the unique capability to help us learn from history, make sense of these troubled times, and cultivate new language and iconography to imagine and build a more just world. We hope that the design strategies offered in this toolkit can serve as a foundation for museums to continue to fulfill this critical mission."

Some recommendations include setting up hand sanitizer stations throughout the museum lobby and galleries and display notices explaining surfaces are regularly cleaned.

For indoor exhibitions, it advises museums to limit the number of patrons that can enter a single gallery or exhibition space at a time. This can be regulated with timed entry ticketing and designated zones that keep visitors six feet (two meters) apart.

B.   Realization of ideas based on graphic design.

Based on the conducted analysis of the design solutions practice in Amsterdam, the methodology for introducing hyper-local micro-markets in Germany was examined more closely. Figure 7 shows the layout of the Viktualienmarkt food market with the help of graphic design. The layout includes a grid of routes for potential buyers and a food court.

Figure 7. Viktualienmarkt graphic design.

The overall market area is divided into seven micro-markets, marked by grids. It allows for a large number of shops to operate. Visitor requirements are adjusted depending on the grid size to maintain a safe distance. For example, when the grid consists of 8-12 designated squares, the overall grid can accommodate a maximum of 4 individuals. Similarly, if the grid consists of 12 or more designated squares, up to 8 visitors can be present at the same time (while using personal protective equipment). The food shops that offer a wide range of products are located at a safe distance from each other and allow for a maximum of 2 people to be served. Each grid is composed of squares with an area of 1.5 square meters. It ensures social distancing for the safety and movement of visitors within the market.

Since the proposed model of social distancing complies with all safety and health regulations and guidelines, it can be effectively implemented in food markets under COVID-19 conditions.

C.   Comparison of graphic design with traditional design methods.

Considering some concepts of graphic and traditional design in the context of various countries worldwide, it is possible to draw the following conclusion. Many designers strive to implement their own ideas as efficiently as possible through graphic image processing and textual elements to create a project. Some studies, such as the social-distancing picnic blanket "Here Comes the Sun" (which allows users to adhere to rules and norms of individual protection), can

be attributed to traditional design methods while designing micro-markets with grid layouts or creating specific instructions for adhering to individual protection measures during the COVID-19 pandemic can be classified as graphic design methods. This can be explained by the varying levels of complexity involved in utilizing specialized software for different projects.

However, in the case of High-Line Park, two design methodologies are combined - traditional and graphic design. The application of markers on the walking portion of the park was carried out based on a previously designed project using computer technology to calculate all the necessary parameters for visitors' park experience. Graphic design was also taken into account in the creation of special announcements and instructions, as shown in Figure 5.

Comparing the experiences of different countries worldwide, one can conclude that the design works in Amsterdam, the Netherlands, exemplify the most rich and effective design solutions. Thanks to the developed social distancing projects, designers have considered several aspects of human functioning, including the built environment and the open public space on the streets.

D.   Modern graphic design as a visual expression of art forms.

A multitude of disciplines and scientific knowledge can shape the forms of visual expression in the art that permeate the sphere of graphic design - the spatial environment of graphic form. Various tools and capabilities create a visual environment encompassing artistic achievements in design exploration intended for representation in spatial design.

In modern design, design managers also explore the diverse, rigid functions of print media. They are striving to find new visual forms for developing design concepts. Particularly in traditional advertising, newspapers, and magazines, as well as other graphic domains, designers seek to bring about change and experiment with new modes of expression, leveraging the natural and social properties of paper materials.

E.   Artificial intelligence in the graphic design industry.

Even though graphic design can be used by many designers worldwide, with the development of modern information technologies and the introduction of artificial intelligence into innovative projects, it can pose a serious threat to humanity, which is interconnected with graphic design activities. After entering the information age, human society has witnessed both

improved quality of life and increased convenience, but it has also led to gradual changes throughout the graphic design industry.

Despite the potential threats to the existence of graphic design, artificial intelligence currently does not pose a substantial risk to design decisions. It is still in its early stages and can only simulate existing forms of information processing, lacking the ability to achieve significant breakthroughs in design innovations. Therefore, designers with artificial intelligence will lack innovative consciousness in the future of the graphic design industry.

5.   Discussion

Graphic design, combined with philosophical doctrines, allows for establishing dependencies and implementing ideas encompassing all aspects of human life. One of humanity's challenges in the modern world is the search for design solutions to adapt to the conditions of the COVID-19 pandemic, which has pushed people toward new ideas. However, from a philosophical standpoint, the Coronavirus has led to a reevaluation of life, details, thoughts, and ideas and a reevaluation of design and architectural solutions. Isolation has temporarily allowed for reflection and reconsideration of what truly matters to us. For example, the new ways of creating a presence and living in the present, both as humans and as individuals, ultimately affected human consciousness during the pandemic (Lima, H., 2020).

With the implementation of lockdowns, social distancing measures, and the transition to remote work, graphic designers and other service providers have had to adapt to new ways of working and serving clients. Considering the widespread belief among graphic designers, industry leaders, and researchers that COVID-19 has impacted the graphic design industry, this study examines the specific impact of the pandemic on graphic design practice in Nigeria. The research aimed to identify any changes in work methods and the degree of influence the pandemic had on the demand for digital design services, as well as to determine the need for creative adaptation to meet evolving client needs. A mixed-method approach, including surveys and interviews with graphic designers in Nigeria, was employed for this study. The research findings indicate that the pandemic led to a shift towards remote work and an increased demand for digital design services. The study also underscores the importance of creative adaptation to meet changing client needs during the pandemic. The research concludes with recommendations for graphic designers in Nigeria regarding adaptation to the new circumstances (Ibiwoye, T. I., Ejem, A. A., & Kanu, E. U., 2023).

In comparing museum projects, Melone, M. R. S., and Borgo, S. (2020) demonstrated the New York Museum as a space that can be walked along a linear path shaped like a spiral. When visiting the museum, visitors experience observing paintings and designs alongside the museum's architecture. Personal distancing may prompt visitors to assume fixed positions and bring artworks closer to them in the museum, organized as open space.

Regardless of the new design solutions that may evolve and the infrastructures that may realize our cities, socio-technical systems' form, and structure will evolve alongside changes in our social practices. Existing inequalities that have emerged during the pandemic's impact on residents push us to pay closer attention to the activities of designers and decision-makers, providing people with the opportunity to control, design, and evaluate the system in which they exist (Robinson, P., & Johnson, P. A., 2021). Architects and urban designers play a central role in this scenario. They have the creative approach to propose new solutions and must show the proper sensitivity to guide the evolution of urban space toward more inclusive and socially acceptable solutions (Gargiulo, C., 2020).

6.   Conclusion

In this study, a literary analysis was conducted on three design concepts based on the practical experience of designers from the Netherlands, the United States, and the United Kingdom. By examining design concepts from these three countries, it can be assumed that numerous designers worldwide strive to realize their ideas through graphic data processing effectively.

By comparing the experiences of different countries worldwide, the design work in Amsterdam, the Netherlands, exemplifies the most effective design solutions. Through developed social distancing projects, designers have considered several aspects of human functioning, including the built environment and open public spaces.

Using modern graphic design technologies, designers have created isolation environments for restaurant visitors and remote environments for hyper-local micro-markets to comply with rules and requirements during the COVID-19 pandemic. The philosophical idea behind the designers is that many inspired restaurants are attempting to incorporate greenhouse structures into their projects. This, in turn, inspired the designer of the isolation greenhouses to come up with new thoughts for further experimentation and sharing their own experiences with others.

The hyper-local micro-markets consist of a network of public markets in the context of the COVID-19 pandemic. The philosophy behind the designers of this project assumes that it is challenging to protect oneself from the risk of infection in the presence of personal protective equipment, as the rules of social distancing are complicated to control. Therefore, designers of this concept urge individuals to adhere to personal safety rules and remain vigilant while visiting the market.

In addition, the authors also analyzed the main trends in the development of modern graphic design in combination with other forms of visual expression of ideas using visual environment tools to create artistic sketches of the project by a designer. Based on the literature review, the study also examined the main challenges of implementing and developing information technologies with the use of artificial intelligence in graphic design, which could pose a significant threat to designers working in this area.

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