

REALISM AND 3D GRAPHICS IN UI DESIGNS AND SOCIAL MEDIA PLATFORMS (TREND OF 2020/21)

الواقعية والرسوم ثلاثية الابعاد في تصميمات واجهة المستخدم ووسائل التواصل الاجتماعي
(الاتجاه الفني السائد في عامي ٢٠٢٠/٢٠٢١)

Hanan El-Sherbiny

Graphic Department, Faculty of Fine Arts – Helwan University, Egypt

حنان الشربيني

قسم الجرافيك – كلية الفنون الجميلة – جامعة حلوان، مصر

hananfouad.09@gmail.com

ABSTRACT

In the years 2020/21, humanity faced exceptional challenges after the outburst of the Coronavirus. This included the strict lockdowns across countries, social distancing and the transition to online communication. Distance learning and working from home circumstances caused technological disruption in how knowledge was acquired and how work is getting done. Computer and software companies competed in providing users with the optimal user experiences while doing their work at home. Simultaneously, the user interface (UI) design of websites and applications had new developments. A modern 3D trend occurred in the graphics and illustrations attached to UI designs. In this paper, the researcher studies Neumorphism and the new 3D style and discusses their characteristics and the circumstances that paved the way for their emergence. A comparison between the 3D and the flat style was conducted. Moreover, this work reviews examples of the new 3D style that has been adopted by big companies such as Microsoft and Pitch.

KEYWORDS

3D illustrations; User interface (UI) design; Neumorphism.

الملخص

واجهت الإنسانية تحديات استثنائية خلال العامين ٢٠٢٠ و ٢٠٢١م، وذلك بعد اندلاع فيروس كورونا في العالم، وشمل ذلك عمليات الإغلاق الصارمة عبر البلدان، وعندها كان التباعد الاجتماعي والاتصال عبر الإنترنت أمراً محتوماً، وقد تسببت ظروف التعلم عن بعد والعمل من المنزل في حدوث طفرة تكنولوجية وابتكارية في الخدمات عبر الإنترنت، حيث تنافست شركات الكمبيوتر والبرمجيات في توفير أفضل الوسائل الممكنة لمستخدمي الكمبيوتر لمساعدتهم أثناء تأدية عملهم في المنزل. وفي الوقت نفسه، حدثت تطورات جديدة في تصميم واجهة المستخدم (UI) لمواقع الانترنت والتطبيقات، وأصبح الاتجاه نحو استخدام رسومات ثلاثية الابعاد على تصميم واجهة المستخدم.

تقوم الباحثة من خلال هذا البحث بدراسة مفهوم التشكل الحديث *Neumorphism* وأسلوب الرسوم ثلاثية الابعاد، كما تناقش خصائصهما والظروف التي مهدت الطريق لظهورهما، وستقوم بعقد مقارنة بين الأسلوب ثلاثي الابعاد وبين النمط المسطح. علاوة على ذلك، سيتم عرض أمثلة فنية عالمية للأسلوب ثلاثي الابعاد الجديد الذي تبنته شركات كبرى مثل شركة مايكروسوفت *Microsoft* وشركة بيتش *Pitch*.

الكلمات المفتاحية

رسومات ثلاثية الابعاد؛ تصميم واجهة المستخدم؛ التشكل الحديث

1. INTRODUCTION

“Trend is a way of development and evolution in something”, following the description in the Oxford dictionary. Moreover, according to the Cambridge dictionary “A Trend is a general development or change in a situation or in the way that people are behaving.” This means that a trend in design is a new way of developing and changing the visual perception of images. Visual arts have always reflected social and political changes in society. In addition to that, graphic design trends happen for reasons, this might be a change in society or a social demand (Karasevich. H, 2020).

By the end of 2019, Coronavirus disease (COVID-2019) has been discovered in China. In less than a month, the cases of infections spread to several countries. After that, most countries in the world have been affected and have started to take this outbreak seriously.

As a result, governments forced strict lockdowns across their countries in order to reduce the possibility of the disease’s spread. Schools have been closed and the medium of learning has been converted to distance learning. Companies suspended working in offices and implemented a work-from-home policy for their employees. These were exceptional and new conditions that faced humanity at the beginning of 2020 (Alashhab. Z.R., Anbar. M, Singh. M.M, Leau. Y.B, Al-Sai. Z.A, Abu Alhayja’a. S, 2021).

2020 has been a difficult year for humanity. Through lockdown conditions and forced closure of stores and educational institutions people had to search for practical and entertainment alternatives. The transition to the online world through distance learning, online shopping, and working from home had an enormous impact on humans’ style of living. As a result, communication platforms have all seen rapid growth while people and businesses had to adapt quicker than ever before. As always in periods of dramatic changes, technology and trends have to reflect the needs of the customer and suggest solutions for better user experiences (Pavlova. I, 2020).

COVID-19 has undeniably changed the human life and working culture. A new era of digital transformation happened that required compatible new technologies, as the old existed capabilities were not able to handle the new critical conditions. (Alashhab. Z.R., Anbar. M, Singh. M.M, Leau. Y.B, Al-Sai. Z.A, Abu Alhayja’a. S, 2021).

As online had become the only place where people could meet, talk, work, learn and shop, user experiences had to develop in order to meet the new needs for better communication. Companies and individuals competed in providing amusing and entertaining solutions for people in the hard times of lockdown and social distancing. An innovation leap has been observed in graphic design and visual illustrations. Moreover, new trends have been introduced in UI design and the graphical visuals attached to it.

After the rise of the flat design concept since Microsoft’s first approach through the launch of the Zune music player in 2006. The flat design had a further development leap when Apple released iOS 7 based on the principles of flat graphics as the basis for user-friendly intuitive interfaces. The flat design developed as an alternative to skeuomorphic designs that gives the illusion of three dimensions through copying real-life properties. (El-Sherbiny. H.F., 2020)

By the end of 2019 and passing through the years 2020/21, a new trend of 3D illustrations has been added to UI designs and the motion graphics attached to them. These 3D illustrations combine the minimalism and geometrical shapes of flat design coated with a third dimension and realism in shapes, lights and textures. They are eye-catching 3D renders that often look photorealistic. It

is a trend that has succeeded in making the most of modern technological advances and software capabilities.

Trending designers are now combining 3D illustrations with flat designs. Others are adding movement and animation, elements that collaborate to make the site stand out from the barrage of others. These visually stunning creations are made to interest and engage the viewer, holding their attention and vitally affecting the bounce rate of websites (Karasevich. H, 2020).

This paper will search for the latest updates in UI design after the coronavirus. It will also study the new trend of visual 3D graphics attached to UI design. In addition to that, it will make a comparison between this style and the flat 2D style. Further to that, it will review their promising use through the internet webpages and social platforms.

2. LITERATURE REVIEW

There is no doubt that UI design has become a crucial industry in modern times, this is due to the importance of using online websites and mobile apps in man's daily life. Research that studies the latest trends in UI design and graphics is done all over the world to follow the updates and suggest visual solutions for the future. The work of (Park, J.H. & Oh, N.Y. & Park, J.W., 2020) in Korea made a study on UI Design Trends Analysis with Neumorphism Design. It demonstrated the development process of GUI design, focusing on the UI design trends, Skeuomorphism, Flat, Material design and the emerging Neumorphism design. It analyzed the possibility of Neumorphism becoming the main UI design trend in the future. Also, the work of (Bjořk, S., 2021) made a comparison between Flat and Neumorphic design and their aesthetic preferences from the point of view of different age groups.

Concerning illustrations and their use in UI design, the work of (El-Sherbiny, H.F., 2020) made a study on the use of flat illustrations in UI design. The research studied the flat style and its origins. It reviewed the benefits of illustrations as well as in making messages and interactions easier, clearer, and more appealing to users. As well as its role in the enhancement of the brand identity of websites and mobile apps. Also, the work of (Popkonstantinović, B. & Krasić, S. & Dimitrijević, M. & Popović, B., 2012) presented a detailed description of the modelling procedure and animation of 3D characters, using the 3D Max software package. As well as the application of 3D character animation in Internet applications and other industrial areas. However, this work is an old one and the 3D illustrations reviewed within had a basic old style.

Therefore, the gap concluded from the literature review includes the absence of a study of the new trendy 3D graphics used in UI design through the years 2020/21. In this paper, the researcher will discuss the developments that happened in UI design post lockdown circumstances, and the new 3D direction adopted by artists. In addition to that, it will review global examples of 3D graphics and their use as illustrations, emojis and motion graphics on user interfaces and social media platforms. A comparison between the flat style and the new 3D graphics style will be done after analyzing the aesthetic values of the new 3D style.

3. PROBLEM STATEMENT

The research problem is looking for answers to the following questions:

1. What are the developments in UI design through the years 2020/21?
2. What might be the reasons behind using 3D graphics in UI design by some companies.
3. What are their characteristics and aesthetical values?

4. What are the implementation stages followed by artists to make these graphical visuals?

4. OBJECTIVES

1. Discover the latest 3D styled graphics and visuals used in UI design in 2020/21.
2. Analyze these 3D graphics and realistic renders from an aesthetic perspective.
3. Study the circumstances that paved the way for this style to emerge.
4. Review samples of universal 3D graphics created in 2020/21 and their use in UI design.
5. Find points of similarity and points of difference between flat and 3D illustrations.

5. METHODOLOGY

This work applies theoretical, analytical, and comparative methodology. It comprises data gathering from different resources and then analyzing and interpreting them to find the final results and conclusions. It includes:

- Discussing the impact of the Corona virus' outburst on human life and online communication through the years 2020/21, as well as its impact on UI design.
- The study of the new trends in UI design, this includes Neumorphism and 3D graphics.
- The review of universal 3D graphics projects achieved by large companies to find the reason behind the adoption of this new style.
- Analyzing the main characteristics of 3D illustrations to spot the difference between them and flat illustrations, as well as their points of similarity.

6. UI DESIGN TREND IN 2020/21

6.1. Neumorphism (Short For “New Skeuomorphism”)

Neumorphism is a visual style that blends techniques from skeuomorphism, realism, and flat design. It believes that elements in UI should not be really flat, or floats above a surface, as the flat style tends to suggest. However, it also believes that UI should not be draped in textures like leather or baize as in Skeuomorphism. Instead, it should look and feel like a user interface made from modern sleek materials that actual physical interfaces might be made from. This ends up in a style representing a modern look that visualizes the future.

The basic principle of Neumorphism is that elements are part of the background itself and extruding from it as if they were pressed from a mould. This gives the feeling of depth and an awareness of 3D space. This happens by using Subtle shadows and deliberate gradients in the design. (Taylor. R, 2020)

Apple’s new design system for OS 11 (Big Sur OS) UI seems to have signs of Neumorphic style.



Figure 1, Calculator Skeuomorphic design in iPhones iOS 6, 2013. (Source (source:<https://www.macobserver.com/tmo/article/iphone-ios-and-the-hidden-scientific-calculator>)

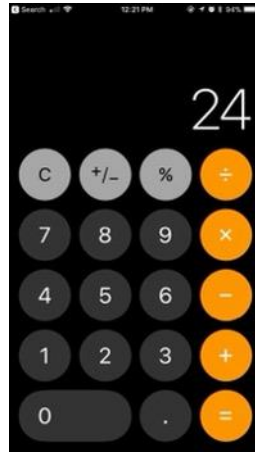


Figure 2, Calculator Flat design in iPhone iOS 11, 2017 (source: <https://www.macrumors.com/2017/10/24/ios-11-calculator-animation-bug/>)

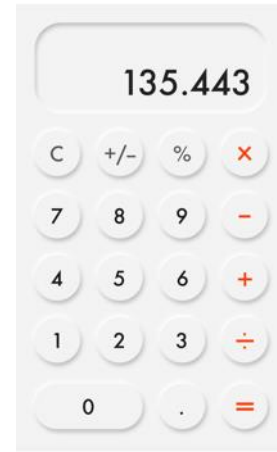


Figure 3, A Neumorphic calculator application design (source: Bjo ĩrk, S; <https://www.diva-portal.org/smash/get/diva2:1574853/FULLTEXT01.pdf#page=75>)

This can be observed through the changes revealed to the app’s icons. Neumorphism is a focus on how light moves in three-dimensional space. It is clean and minimal, and the shapes stick rigidly to basic geometry. The new icons are no longer flat and are certainly not skeuomorphic. All of them have shading and highlights from a consistent 12 o’clock light source which makes them move back towards three-dimensionality, as seen in the next figure (Noe, R., 2020)

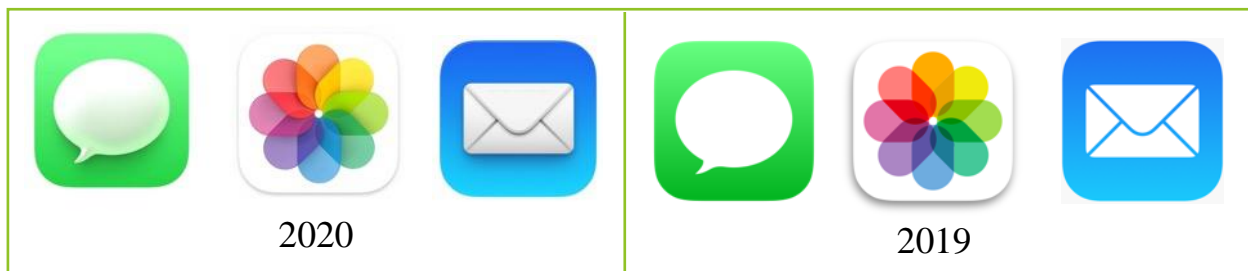


Figure 4, Icon designs for Messages, Photos and Mail apps on the apple OS operating system. On the right, the Icons are following the flat style, while on the left the new icons are following Neumorphism. (Source : <https://9to5mac.com/2020/06/26/neumorphism/>, <https://assets.justinmind.com/wp-content/uploads/2020/04/material-design-vs-flat-design-skeuomorphism.png>)

6.2. The Rise of The New Styled 3d Graphics

Digital flat illustrations emanated in the last ten years to cope with the flat design concept used in computers and smartphones’ UI design. The applied flat design succeeded in giving UI a universal look. It also helped devices and software work better and load faster and thus making the user experience easier and more optimal.

In that period, flat illustrations have been used widely by large companies in their websites and mobile apps' UI to deliver messages, make interactions easier and make the user experience more amusing and appealing to users. They also contributed to the enhancement of brand identity for websites or mobile apps. (El-Sherbiny. H.F, 2020)

By the end of 2019 and the beginning of 2020, the flat style's geometric shapes and grid system have been developed to have a 3rd dimension in its look. A new 3D graphics system is being added gradually to UI designs and social media platforms. These 3D graphics appeared as illustrations, emojis and motion graphics that serve in the brand identity of large companies' websites. Microsoft is one of the most important companies that plan to expand the use of 3D graphics and photorealistic renders in their UI design and the brand identity of their software in the upcoming years. This happened directly after the arise of the pandemic and the shift to working from home policy. Also, Pitch company is another good example of a UI design that is loaded with 3D graphics and character designs interacting with the features of the Pitch website. Much more examples have been found by the researcher as well. This will be reviewed and discussed later.

7. 3D ILLUSTRATIONS

As mentioned before, illustrations are used by large companies in their websites and mobile apps' UI to make messages and interactions clearer to users and to contribute to the enhancement of brand identity. It also makes the user experience more amusing and appealing to users. With the rise of social distancing and lockdown circumstances. And the lack of face-to-face meetings due to hybrid working and education systems. Flat illustrations got more mature, alive, and expressive through making characters in a 3D style.

7.1. Their Characteristics

Flat illustrations in UI design used to be simple, free of details and realism. They consisted of geometrical shapes, layers of solid colours and tonal shadows. Their colour palette used to be minimalistic while textures and gradients were extremely avoided. Moreover, the anatomical proportions of characters were exaggerated sometimes. As well as that, facial features needed to be simple and even might be neglected.

On the other hand, the new 3D illustration style and realistic renders are characterized by hyper-realism in textures, colours, lights, reflections, effects and physical motion. This is in addition to the use of abstract shapes and simple body parts for the human body which includes the hands, the legs and the facial features. It is an arising style that combines the minimalism and geometrical shapes of flat design with modernism and realism in shapes, lights and textures.

After research and analysis, the researcher could suggest the steps followed by artists following the new 3D style and the techniques used. This suggestion is based on the information found on the personal profiles of the artists on the Behance website. As each artist can add the tools he used while uploading every Art project he did. Illustrations are first drawn as sketches following the flat style features, this can be done using programs such as Adobe Photoshop or Adobe illustrator. After that, they are built as 3D figures and coloured on software like Maxon Cinema 4D, Pixologic Zbrush, Redshift, Marvelous Designer, Substance 3D Designer, Substance 3D Painter and Blender 3D. This can be observed in figures 5, 11 and 20.

In figures 6 and 7, the researcher displays the difference as well between flat illustrations and modern 3D illustrations.



Figure 5, The steps followed by the artist to create a 3D character for Pitch website, Artist: Arek Kajda, 2020.
(Source: <https://dribbble.com/shots/7319211-Pitch-Fanboy>)



Figure 6, Flat illustration,
Artist: Hanan El-Sherbiny, Egypt, 2020.
(Source: <https://jaars.journals.ekb.eg/article/153877.html>)



Figure 7, 3D illustration, summer show collection, Artist: UV, China, 2020.
(Source: <https://www.behance.net/gallery/100089591/3D-fashion-Summer-shows>)

7.2. Pitch Website 3D Illustrations

Pitch is a collaborative presentation application that enables online teams to work through video conferencing. It enables remote teams to collaborate on a shared workspace, so that they can assign tasks, comment on each other's input and hold video calls to debate progress. Pitch was started in 2018 by a team of eight co-founders among them Pitch founder and CEO Christian Reber. (Reuters, 2020)

Pitch was among the first SaaS (Software as a service) companies to use sorts of 3D illustrations in their UI design. The company became known for its style, and it grew in popularity. However, in 2020 the company wanted to make new visual developments that would make Pitch's UI outstanding and different. The company was keen on keeping its original design style while building a consistent identity as an iconic brand with a more mature look in terms of proportions, colours, and possible situations interacting with the UI while still keeping its fun and playfulness. The company's in-house design and brand team collaborated with a hired team from "DesignStudio" to work on Pitch brand evolution. Their target was to create a longer-term vision for Pitch as a distinct and recognizable brand.

Concerning the 3D character design, Anna and Arek Kajda were responsible for this task. At a time when most UI designs were focused on flat or isometric illustrations, Pitch preferred to adopt a new style that mixed flat design with 3D graphics and illustrations. Pitch’s illustration style is colourful, playful and friendly, but not in a childish way (Millwood. A, 2020).

The tools used by the illustrators Anna and Arek were Adobe Photoshop, Adobe Illustrator, After Effects, Maxon Cinema 4D and Pixologic Zbrush.

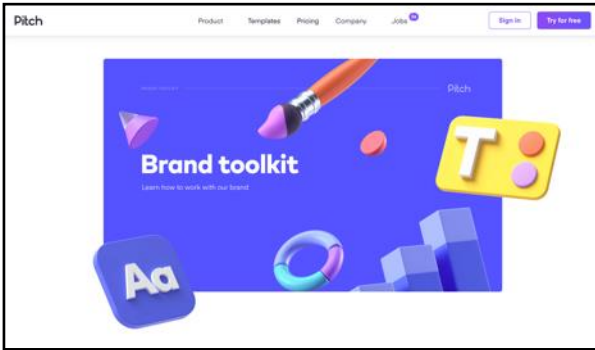


Figure 8, Pitch Website User interface, it can be observed that the design is a combination between flat design and 3D illustrations, 2020. (Source: <https://pitch.com>)

Figure 9, 3D illustration for two characters interacting with the features of Pitch software, 2020. (Source: <https://www.behance.net/gallery/101084519/Pitch-3D-Brand-Illustrations>)

The illustrating style is a merge between minimalism, abstract geometrical shapes, 3D lights and realism. Textures are sleek following the Neumorphism style. Colours follow the brand identity of the website which gives the feeling of unity.

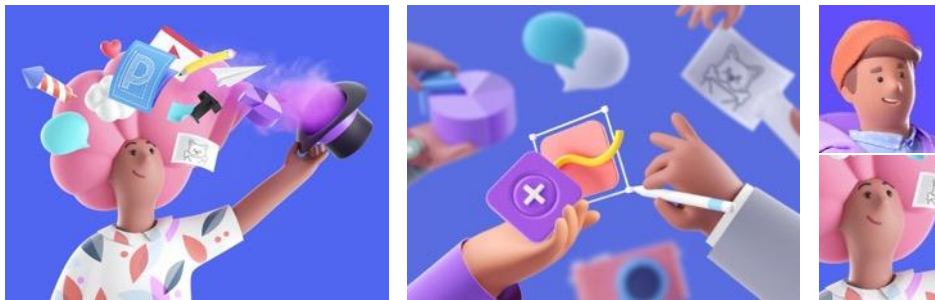


Figure 10, 3D illustrations for Pitch website, close ups on abstract faces and hands in 3D style, Artists: Anna and Arek Kajda, Germany, 2020 (Source: <https://www.behance.net/gallery/101084519/Pitch-3D-Brand-Illustrations>)



Figure 11, The steps followed by the artists to create a 3D illustration for Pitch website, Artists: Anna and Arek Kajda, Germany, 2020. (Source: <https://www.behance.net/gallery/101084519/Pitch-3D-Brand-Illustrations>)

7.3. “Facebook Always on” 3D Illustrations

In 2017, Facebook created a holistic 2D illustration and animation ecosystem for its UI. The core principle followed was to design a scalable system rooted in flat, minimal, and geometric shapes. All figures were abstracted, limbs were oversized and non-representational skin colours were used to help them achieve a universal feel. (El-Sherbiny. H.F, 2020)

However, in 2020, Facebook went along with the trend and the UI technological updates. This happened when it collaborated with the Brazilian 3D artist “Leo Natsume” to design 3D illustrations for the “Always On” project. Leo was responsible for the conception of re-imagining the well-known 2d style of Facebook for the next level in 3D. This project aimed to represent some commemorative and cultural dates of the October month in Brazil such as teacher's day, children's day, musician's day, dog's day, Nordestino's day and also Pink October. The main illustration was being used on the cover of the Facebook main page. (Natsume. L, 2020)



Figure 12, 3D illustrations for Facebook always on project, Artists: Leo Natsume,, Brazil, 2020. (Source: <https://www.behance.net/gallery/106654401/Facebook-Always-On>)

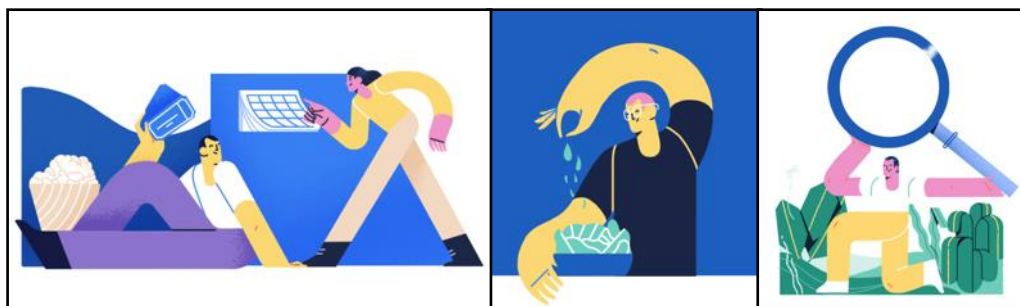


Figure 13, Flat illustrations for Facebook Algeria where human figures are composed of primary shapes, Buck creative agency, Los Angeles, 2017. (Source: https://www.behance.net/gallery/66231245/Alegria?tracking_source=search_projects_recommended%7CFACEbook%20alergia)

Leo did not go far from the original look and style, instead, he added a 3rd dimension to the figures and the environment surrounding them. He added textures as well and a source of light to the scenes. However, the characters seem to be made from clay. He used programs such as Adobe Photoshop, Adobe Illustrator, Adobe Dimension, Blender 3D and Octane Render.

In figures 12 and 13, the researcher reviewed the development that happened to Facebook UI illustration style since 2017 and until the year 2020. However, Facebook still uses flat illustrations

in its UI despite the 3D project done by Leo Natsume in 2020. The difference between the two styles can be observed easily.

7.4. "Stay Home, Stay Healthy" 3D Illustrations

“During the Covid-19 lockdown and tough times, we decided to work on a series of 3D illustrations to try to remind people to stay home, positive and healthy”, said the Vietnamese artists "Nguyet Anh Doan" and “The Anh Duong” commenting on their project that was published on Behance website on the 23rd of August 2021.

Their 3D artworks portray human female figures relaxing at home and doing some yoga. The artists designed a character with abstract body parts and with no facial features. However, she is dressed in clothes with realistic textures. The character is placed in realistic environments as well with minimum colour palettes for each illustration. The artists used the programs Maxon Cinema 4D, Redshift and Marvelous designer to produce these hyper-realistic renders.



*Figure 14, 3D illustrations, Artists: Nguyet Anh Doan, The Anh Duong, 2021.
 (Source: <https://www.behance.net/gallery/125518713/Stay-home-Stay-healthy>)*

8. MICROSOFT 365 NEW BRANDING AND GRAPHICS SYSTEM

8.1. Microsoft Whiteboard Load Screen 3D Illustration

Microsoft introduced Whiteboard in 2017. However, demand for Whiteboard has accelerated since the start of the pandemic. This led Microsoft to add features more quickly, said Nicole Herskowitz, general manager of the Microsoft Teams communication app. In 2021, Microsoft updated Office apps for a Hybrid Work model in which more people work from home. (Novet. J, 2021). This update included updated UI design, illustrations and motion graphics series.

By June 2021, Microsoft has published on their official page on Instagram, 3D illustrations for the load screen in the upcoming evolution of their Whiteboard app. Microsoft Whiteboard is a real-time collaboration tool that allows Microsoft users to quickly share ideas with other people. It is a freeform canvas where users can type or draw their ideas, and add sticky notes and images.

Microsoft said that in the past months, it has been exploring a brand new UX illustration aesthetic for its software Microsoft Fluent. One that aims to be more joyful and playful. One of the first experiments led by Microsoft Art Director “Alexis Copeland” was a 3D illustration for the load screen in their Whiteboard application and close collaboration with the illustrator Danil Tabacari. The Design is driven by the new user interface of the application. (Microsoft Design page on Instagram, 2021)

Danial used the programs Substance 3D designer; Substance 3D painter and Redshift render to make his artworks. The use of vibrant colours is obvious. Objects have a modern and opaque rubber texture that suits the modernism of UI designs.



Figure 15, 3D illustration for load screen in Whiteboard app, Artist: Danil Tabacari, 2021.
(Source: <https://www.instagram.com/p/CQOi7j-HAbA/>)



Figure 16, 3D illustration trials for Whiteboard app, Artist: Danil Tabacari, 2021.
(Source: <https://www.behance.net/gallery/122288873/Microsoft-Whiteboard-Load-Screen>)

8.2. Microsoft Emojis' 3D Designs

Life has been difficult over the years 2020/21, due to the lockdown in many countries and social distance circumstances. The ability to connect online, remote working and online chatting made things better for humanity.

Hence the rise of emojis that are full of life and colours. According to a recent survey, 55 per cent of people said they are using emojis more widely as one of their communication tools since the start of Coronavirus. This allows them to fill their conversations with emotional cues that make them clearer and less likely to be wrongly understood. Emojis can add a sense of humour to chats as well, this provides conversations that tend to be easy and free of stress.

Emojis were first designed and aimed at mobile phone users with low-resolution screens to be used in teenage messaging, that's why they needed to be simple and basic. Many emojis remain in that primitive state until our day, which causes ineffectiveness at conveying true emotions. However, they became a fundamental part of daily professional life.

"Chatting and meeting online, whether for work or play, certainly wasn't born in the pandemic," adds Claire Anderson, art director at Microsoft. But after lockdowns, when talking and chatting online became the only place that people could go to work or connect with their loved ones. They needed to express their words and feelings in a more dynamic form of communication.

That was the motivation behind Microsoft's initiative to redesign all its emojis in a way that facilitates communication and work now. It has been working for the last year to make its emoji system vibrant and more expressive of human emotions. This involved turning more than 1,800 emojis that already exist within its office suite, Microsoft 365, from 2D into 3D, while adding animation to the majority of them. This transformation included every smiley, person, animal, food, object, and symbol.

Microsoft collaborated with design researcher Meghan Stockdale to ensure that emotional honesty and playfulness would be reflected in the new designs. They preferred avoiding symmetry and

perfection in proportions, instead, they chose imperfect circles to be the silhouette shape for ahead. The concept behind this was that every person has his own deficiencies, and so an element of imperfection would honestly resemble people and evokes feelings of humanity and connection.

Consistency was an indispensable element while redesigning that large number of emojis. This was successfully done by using simple geometric forms as a base for all the designs. The design team took good care of the expression of eyes and eyebrows in all emojis. That’s in addition to adding fine details and depth factors to the characters. Bright, saturated colours and bold forms were used in order to make the designs inspiring, delightful and emotionally engaging to people (May.T, 2021).

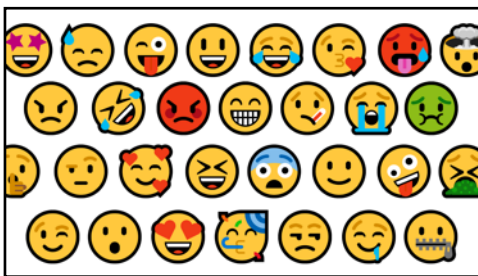


Figure 17, Current designs of Microsoft 2D Emojis ,
 (Source: <https://blog.emojipedia.org/new-fluent-emoji-designs-from-microsoft/>)

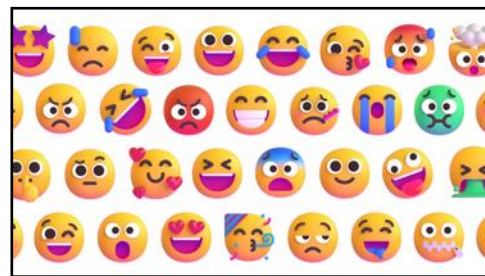


Figure 18, New Fluent designs of Microsoft 3D Emojis, (Source: <https://blog.emojipedia.org/new-fluent-emoji-designs-from-microsoft/>)

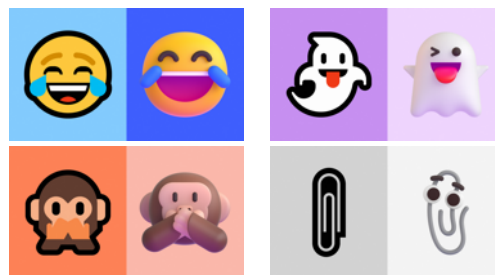


Figure 19, Close up on 4 Emoji designs for Microsoft 365 UI, on the left of each we can see the old 2D emoji and on the right the new Fluent 3D version. (Source: <https://www.creativeboom.com/news/microsofts-reimagined-emojis-add-a-new-emotional-fluency-to-chatting-online/>)

8.3. Microsoft 3D Motion Graphics

Motion graphics have been used by the film and television industry for decades in order to present and promote movies and TV shows (Schlittler. J.P.A, 2015), The term “motion graphics” was first mentioned by John Withney, the well-known animator, in 1960. (M Dare Shir. M.F, Asadollahi. M, 2014). According to Joao Schlittler, Motion graphics is the art of combining animation and graphic design in order to convey information and communicate ideas. It is also a method of expression and communication with the audience through utilizing innovation, imagination, and graphic effects. It plays as a display context where animation and graphic elements are considered expression tools in the creation of the work (Dare Shir, M.F. & Asadollahi, M., 2014).

Motion graphics are widely used nowadays on social media platforms in order to promote products, ideas, and beliefs and it has an important role in Awareness campaigns as well.

On the 6th of January 2021, Microsoft Design published on their official page on Instagram a series of promotional illustrations for @Microsoft365, featuring PowerPoint, Word, Excel and OneDrive. This project has been done to promote Office 365 Suite in collaboration with the artists Mathieu L.B and Matthieu Braccini (Microsoft Design, 2021). The artists had the task to produce a series of 3D illustrations and the results were outstanding. Motion design was added as well for more effective communication. It let the 3D illustrations feel alive and delightful. It also helped for a better imagination of the software’s features and uses.

Team members:

- Art direction : Mathieu Le Berre & Matthieu Braccini
- 3D Illustrations & Sketches: Mathieu Le Berre & Matthieu Braccini
- Creation Direction: Samuel Clarke
- Project Manager: Jana Huskey
- Programs used: Adobe Photoshop, Illustrator, After Effects, Maxon Cinema 4D.



Figure 20, 3D illustration for a scene that promote Skype app from Microsoft office suit, on the left a 2D Flat sketch for the scene, 2021, Art by: Microsoft Design team, Mathieu Le Berre, Matthieu Braccini, France. (Source: <https://www.behance.net/gallery/111703053/Microsoft-365-The-New-Way>)

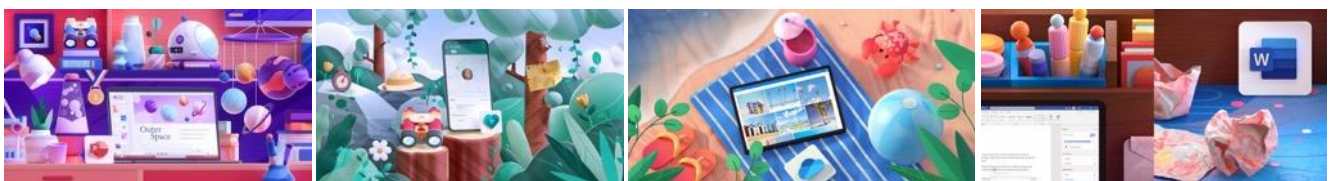


Figure 21, 3D illustrations for scenes that promote 4 apps from Microsoft office suit, 2021, Art by: Microsoft Design, Mathieu Le Berre, Matthieu Braccini, France. (Source: <https://www.behance.net/gallery/111703053/Microsoft-365-The-New-Way>)

Throughout 2021, Microsoft has published other motion graphics videos on social media platforms like YouTube and Instagram to promote their products and to show their newest features. This includes a video that introduced “The kids’ mode in Microsoft edge browser” in April 2021, a video that introduced “Microsoft Fluent Emoji’s makeover” published on 15 July 2021, and a video that promotes “Microsoft’s new safety and security features” and much more. All of these motion graphics videos followed the realistic 3D style, surfaces are sleek, visuals are elegant and modern, and animation is smooth. This reflected the modernism and the technological leap that happened to Microsoft in the years 2020/21.

9. RESULTS AND DISCUSSION

The results of the paper came to solve some questions that the researcher needed to find answers for. UI design is observed to have important developments after the outburst of the pandemic. This can be linked to the transition to an online communication lifestyle, working from home and online learning policies. Software companies competed to provide users with the optimal user experiences. Moreover, Social distancing and the lack of face-to-face meetings urged the need for online 3D visuals. This happened for better communication and expression while staying at home.

The paper could analyze as well Neumorphism and the new 3D style, where it came up with major characteristics that define both styles. Neumorphism style is a UI design style that attempts to express forms in a simple way but as close as possible to real life, this happens by purifying the shortcomings of skeuomorphism design and taking advantage of the minimalism of flat design Which agrees with the work of (Park, J.H. & Oh, N.Y. & Park, J.W., 2020). Moreover, the researcher could find the main features of the new 3D graphics and illustration systems that combine the simple geometrical shapes of the flat style with realism in lights, shadings and textures. This new style of 3D illustrations can enhance the brand identity of websites' UI and add a modern look that visualizes the future. In the following diagram, the researcher could summarize the points of similarities and differences between flat illustrations and new 3D illustrations.

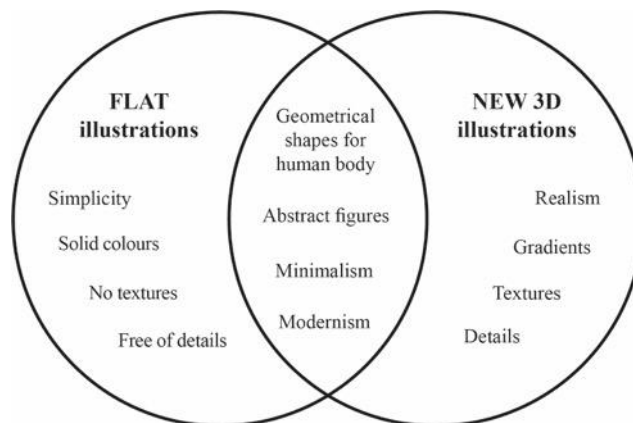


Figure 22, A diagram that summarize the points of similarities and points of differences between flat and 3D illustrations. (Source: Author)

10. CONCLUSION

Through this work, the researcher could finally come up with a few conclusions concerning the developments in UI design through the years 2020/21, which can be summarized as follows:

- A clear development occurred in UI design after the pandemic outburst due to the technological leap witnessed in online services and computer software.
- Companies and artists adopted the new 3D style while designing the graphics and illustrations attached to UI, this happened to provide a better expression for feelings and offer better communication tools while social distancing.
- The new 3D style combines the minimalism and geometrical shapes of the flat style with modernism and realism in shapes, lights, and textures.

- Artists use multiple programs such as Adobe Photoshop, Adobe Illustrator, Substance 3D designer, Substance 3D painter, Zbrush and much more while making their 3D illustrations. This makes it clear that the new 3D style illustrations go through several operational stages. As they are first drawn as sketches following the Flat style features then they are built and coloured on 3D software to give them the final realistic look.

11. RECOMMENDATIONS

After working through the paper, and discussing the developments in UI design through the years 2020/21, the researcher recommends that:

- Egyptian artists need to create such kinds of 3D illustrations in order to be used on local UI designs, as the researcher couldn't find Egyptian examples while doing the research.
- Contemporary 3D software needs to be used within the learning process in the Graphics department of the Faculty of Fine arts. This could help in providing efficient graduates in the modern graphic design field.
- Further research needs to be done on UI designs and the illustrations attached to them in order to track the updates within the next years. And to monitor whether Neumorphism and the 3D trend will remain for more years as flat design, or it will be a short-term design trend.
- Moreover, other research needs to be done on the use of modern 3D characters (with abstract shape compositions) as brand ambassadors in advertisements. As well as their role in the enhancement of brand identity.

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