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НЕОМОРФИЗМ – ТРЕНД ИЛИ БУДУЩЕЕ?

Аннотация*: в статье рассматривается новая тенденция в дизайне интерфейсов под названием «неоморфизм». Уже зарекомендовав себя в 2020 г. как нечто удивительное, неоморфизм оригинален и эстетически привлекателен. Слово «неоморфизм» – это сочетание двух слов: «нео» (новый) + скевоморфизм. Также как и неоморфизм сегодня, явление скевоморфизма было популяризировано компанией Apple и теперь стало мировым трендом. Некоторые дизайнеры считают неоморфизм реинкарнацией скевоморфизма, только созданного по новым минималистичным предпочтениям.*

Ключевые слова*: неомофризм, скевоморфизм, интерфейс, дизайн интерфейса, интерфейс пользователя, опыт взаимодействия.*

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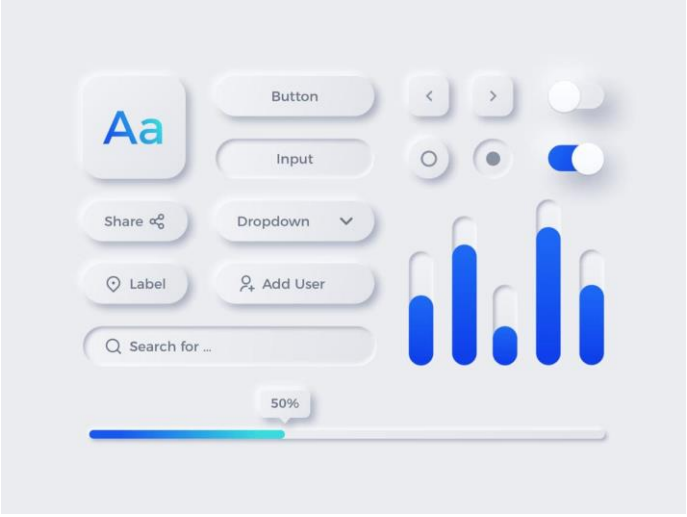
NEUMORPHISM – TREND OR FUTURE?

***Abstract**: this article observes a new tendency in interface design called neumorphism. Having become an absolute wonder of 2020, neumorphism is eye-catching, innovative and aesthetically satisfying. The name «neumorphism» is based on two words: «neu» (new) + «skeuomorphism». Just like neumorphism today, skeuomorphism was once popularized by Apple and became a worldwide trend. Some designers refer to neumorphism as to a reincarnation of skeuomorphism but created in accordance with modern minimalistic preferences.*

***Keywords**: neumorphism, skeuomorphism, interface, interface design, UI (User Interface), UX (User Experience).*

Origins of Neumorphism.

Neumorphism is a type of UI/UX design which uses highlights and shadows so that the elements of interface appear floating above the surface. This effect makes the widgets look as if they were real objects which can be touched and moved.



Picture 1. The example of Neumorphism

As a trend, neumorphism started gaining its popularity on a famoussocial networking website for digital designercalledDribbble. It is believed that one of the first examples of neumorphism was introduced by Alexander Plyuto. His work was well-received and other designers instantly picked it up. Michal Malewiczthen published an

article on a popular platform Medium, describing a new tendency in UI design. Later on,Jason Kelley contributed to the trend by proposing the word «neumorphism». Soon the internet was brimming with neumorphism concepts and even ready-to-use products.

In fact, neumorphism is an heir to Apple's traditional design – skeuomorphism. The objects created in skeuomorphism are very detailed and elaborate, that is why, having given the start to the trend, Apple soon began to gradually drift away from it. Their new objective was to introduce Flat Design which was viewed as a perfect reflection of the love for minimalistic widgets. With a certain touch of creativity from sophisticated designers, Flat Design remained a leading trend until 2018–2019, when it faced a severe decline.

Consequently, the search for a new design, which would spark interest and attractusers, ended up with the introduction of neumorphism. Apple was quick to adopt the new style and presented it as a basis for the new IOS 14 and macOS Big Sur. The company defined the new design as both «bold» and «elegant». Such formula sounds up-to-date since it reflects the general perception of the world: unconventional beauty combined with defiance and expressivity.The article created by Apple on their website explains that neumorphism «when you boil it down, is a focus on how light moves in three-dimensional space». The company's developers also claim neumorphism to be their greatest upgrade in digital design in the recent years.

Interestingly enough, some designers believe that neumorphism is a reflection of an industrial design used by Mario Bellini in 1970s. The famous Italian architect used a stretched membrane to create keys on his telephones and calculators. This method enabled the user to establish a better contact with the keys and buttons since they were easily seen on the surface of the device. The shape and colors looked natural to the eye. As a result, the design was proclaimed innovative, which undoubtedly relates to neumorphism and its current popularity. Unsurprisingly, history repeats itself.

Picture 2. Mario Bellini's phone

The question whether neumorphism will stick around and will vanish as quickly as it appeared, still remains.

Advantages of Neumorphism.

Despite being relatively controversial, neumorphism still has a number of undeniable advantages.

Firstly, neumorphism contains a certain amount of features which enable it to be attractive and noticeable. The style looks futuristic due to its smoothness and dimensionality, which highlights its uniqueness. The dimensionality helps to discern the objects from the background and emphasize the most important information. If the color spectrum is used properly, the interface becomes user-friendly and intuitively understandable. This obviously attracts users and defines the future development of the interface. Regarding its realism, neumorphism is close to Material Design with its main characteristic being the relation to real-life objects. Realism implies the physicality of objects, especially when sliders and cards are observed. This particular quality makes it simpler for the newly introduces users to interact with the widgets. The process of learning to use programs is therefore going to be quicker which is a major advancement in the modern hectic society.

Secondly, neumorphism is the definition of simplicity and complexity at the same time. With the users being tired of elaborate designs, this style creates an absolutely new approach to common apps and websites. Neumorphism helps to unload the background and introduce more details to the icons while at the same time still keeping them minimalistic.

Thirdly, the use of neumorphism does not exclude the elements of other styles. As mentioned above, it has strong bonds with Flat Design and Material Design. Thus, there is a lot of space for creativity and self-expression, which is highly valued in the modern world. This also means that neumorphism will not remain static and has a lot to gain from the experience of both its predecessors and «colleagues». Being user-oriented is key though, so the main idea for companies who decide to introduce neumorphism to their software, is to be responsive to the needs of their users.

Moreover, neumorphism seems an ideal solution for certain types of programs, which could benefit greatly from making the objects more realistic and clickable. For instance, itis entirely appropriate for designs of music services and apps which use cards (tickets, credit cards, etc.). People seek to relate to toggle switches, sliders, and cards because they resemble material objects they can touch in real life. With radios and audio systems being replaces by streaming services, humans tend to lack physical contact with all the buttons and dials. Tickets have also migrated to our gadgets, so the feeling of paper is vanishing from our lives. However, it is not only the feeling, but the physical movement of the object. As a result, neumorphism seems to be successful in imitating the visual part of real objects: cards can be flicked, tossed and torn, sliders create grooves and dials can be spread into colorful segments.

Disadvantages of Neumorphism.

Unfortunately, the advantages of neumorphism, which are mentioned above, are overshadowed by certain drawback. Despite being visually aesthetic, fresh and innovative, neumorphism in its present state leaves a lot be desired.

To begin with, the use of gadgets and internet today is not only limited to perfectly healthy people. With the help of technological advances humans with auditory, cognitive, neurological, physical, speech and visual disabilities have access to devices and programs. However, neumorphism is not suitable for people with cognitive, physical and visuals problems.

The design of neumorphism is based on the contrast ratio, so the objects have the same color but are differentiated from the background with the help of shadows and soft angels. As a result, the objects are too subtle and important clickable buttons are

not easy to find, which confuses the user greatly. This makes neumorphism inaccessible for people with visual disabilities. Furthermore, this disadvantage is also crucial for other users, even if they do not have such problems. We are used to the fact that our smartphones adapt the screen brightness inaccordance to the surrounding environment. When it is dark, the indicator gives a signal to the system to reduce the brightness and consequently, the brightness is increased when the illumination is too strong. This option helps us to gain better understanding of what is written on our screen. With neumorphism, however, this becomes impossible. There is no use in increasing the brightness of objects in this type of design since it gains the user nothing in terms of color and distinguishability because of low contrast levels.

The cognitive aspect is to be taken into account too. Neumorphism ruins the principles of hierarchy in design. Normally, more important objects and discerned through the way they are highlighted. However, in neumorphism all objects are part of the same system because they are all created in the same way. The lack of hierarchy also prevents us from concentrating on something particular on the screen, so that the interface looks like a blank sheet. Structure is key to making quick decisions and processing information. Thus, neumorphism establishes a certain obstacle for comprehension and hinders the coherence of information. While every other invention craves for making the interface more understandable to the user, neumorphism seems to be a countertendency since it makes people waste their time contemplating on the actions they could normally do intuitively.

In addition, neumorphism creates confusion. The border between clickable and non-clickable objects in this design is blur. Lines, shadows and angles are softened to the extent where the user can no longer discern whether some particular button is active or not, whether some option is switched on or switched off. This again reminds us of the fact that a perfect design should save time, not waste it. It is believed that objects on the screen should be designed in order to trigger our attention whenever something changes, for a reason. The disorientation makes the user put aside certain decisions, causes anger and frustration. Every move on the screen should be visible and easy to detect for the user to react quickly. In the modern world the ability to check information

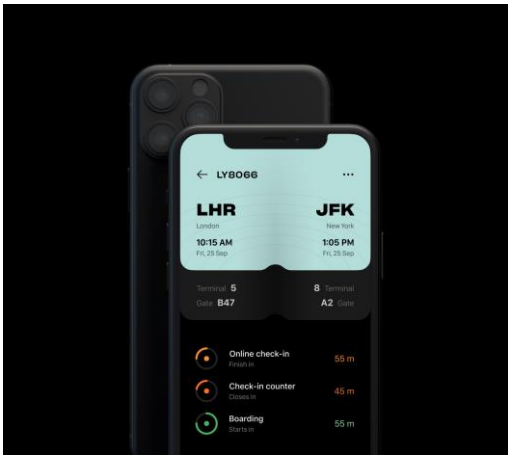
quickly, reply to messages immediately, activate or deactivate certain options is highly relevant.

The dimensionality notwithstanding, soft shadows are clearly not sufficient for providing the user with enough information to intuitively understand the system. On the contrary, the lack of color combined with dimensionality is extremely confusing. Sadly, neumorphism is quite far from solving tasks crucial for the user. It comes around as overfilled with unnecessary effects and yet this design fails to address the triggers well-known to the user. While being visually pleasing, neumorphism is rather impossible to effectively interact with. The user spends a lot of time getting acquainted with every tiny element of the design and even then extracting the required information may be difficult. All in all, neumorphism is a step back in terms of integrity and cognitively rather than an advancement.

Current Applicability.

As one of the first designers to introduce neumorphism, Alexander Plyuto is currently working on services which can fully apply neumorphism to their interface.

One of his recent ideas is an app called WeFly, which helps to keep all your flights in one place. The service structures the tickets, controls the time and provides detailed information about the trip. This app obviously uses neumorphism in its design, which looks exquisite. As already mentioned above, this type of design seems to be especially applicable for cards, therefore the tickets are particularly pleasing. Moreover, Plyuto successfully balanced the colors, making it easier for the user to differentiate between various dials.

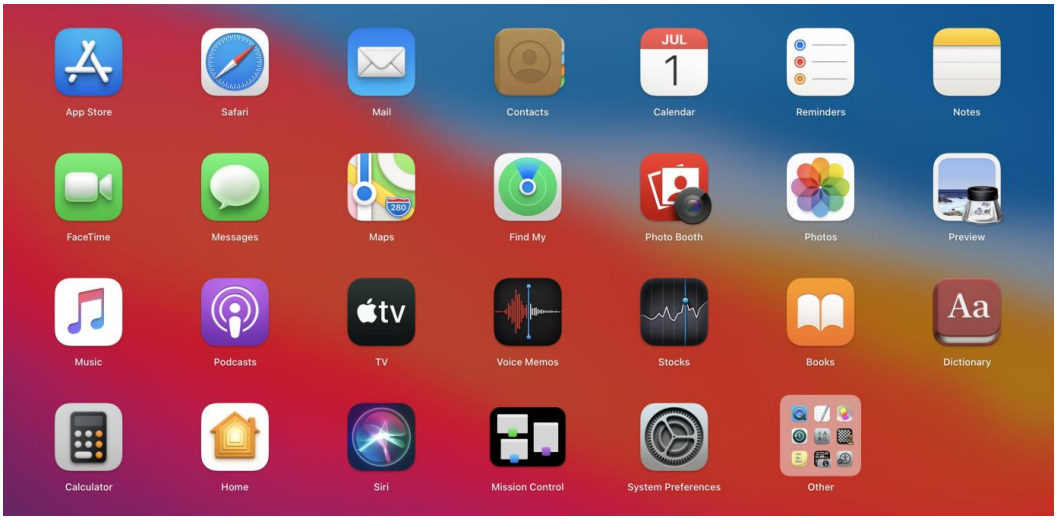


Picture 3. WeFly app by Alexander Plyuto

Another intriguing concept suggested by Alexander Plyuto is a reading app called LIBRA. It offers an enormous collection of books, marks your progress of reading, sets goals and uses various types of tags and markers in order to highlight interesting information. The design is presented in both down light and dark modes. It looks smooth and cozy with a nice combination of pastel shades and carefully chosen lightning.

Unfortunately, for now these apps remain only as concepts but it will certainly be interesting to see them turn into real services, which can be used and appreciated by many people around the globe.

Today the only serious example of neumorphism used in interface design is Apple with their IOS 14 and macOS Big Sur. However, it must be highlighted that the form of neumorphism introduced by Apple is rather moderate. A clear dimensionality can be detected in the design of such icons as Settings, Safari, Messages, Calculator and some others, but it is still quite far from the elaborate neumorphism concepts we can see on the internet. Being a big and influential company, Apple undoubtedly avoids making harsh decisions and does not want to rush the trend. The mild elements of neumorphism in the current design are hardly noticeable for ordinary users. Yet, some consider them to be a step forward in terms of interface design.



Picture 4. MacOS Big Sur

Prospects.

Neumorphism looks fresh, inspiring and reflects the strive for freedom and expressivity. Some people were convinced that the trend would never go beyond Dribbble and would only remain a local trend among the UI designer. Therefore, the shift Apple

made towards this design came as a surprise to many of them. Others remained conscious and perceptive, carefully monitoring the development of neumorphism and watching it become more and more comprehensive.

Whether Apple will continue to contribute to neumorphism or will eventually choose a different path is yet to be seen. For now, the company is certainly studying the reaction of its users, trying to define if the new design helps them to operate quicker or, on the contrary, creates obstacles for interacting with the system.

However, some smaller companies and services could definitely benefit from the new design and attract new users via introducing a fresh interface. The experience of current products and the wishes of the users suggest that neumorphism is most applicable for cards and dials. If such aspects are taken into consideration and developed by world-class designers, neumorphism could succeed and become a normfor a certain type of services.

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