

SENG 44222

Usability Engineering

Colour Theory and Laws of UX

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Imagine you're designing a house. UX would be the foundation, while UI would be the paint and furniture.



Jonathan Widawski, CEO at Maze

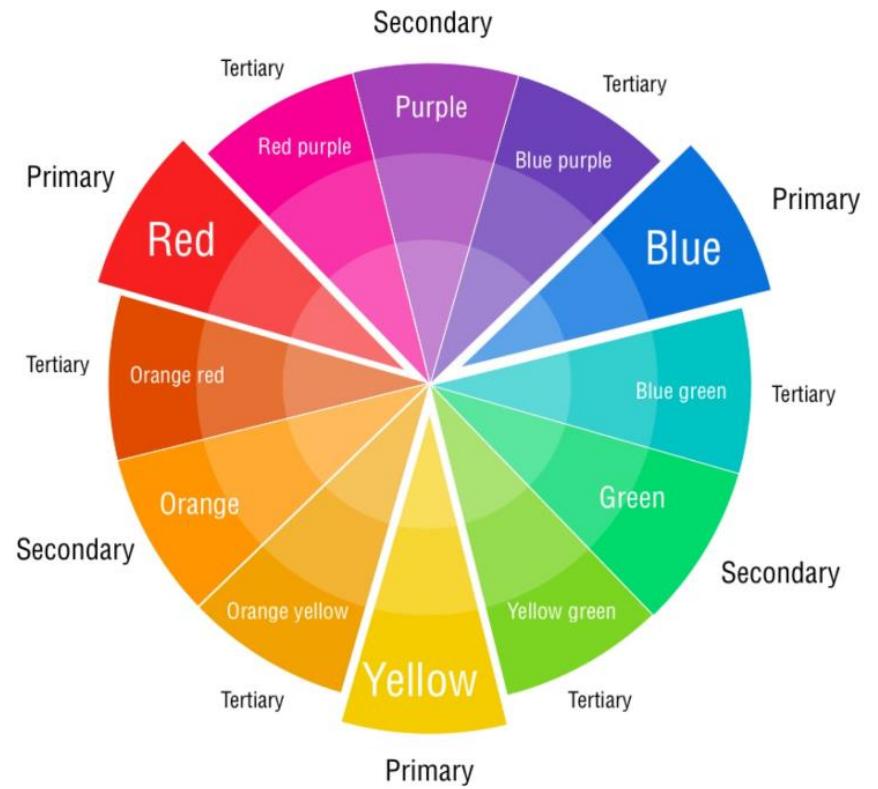
Color Theory

Color theory is the collection of rules and guidelines that designers use to communicate with users through appealing color schemes in visual interfaces.

For that, designers use the **color wheel**

Google's logo is among the most popular and eye-catching in the world.

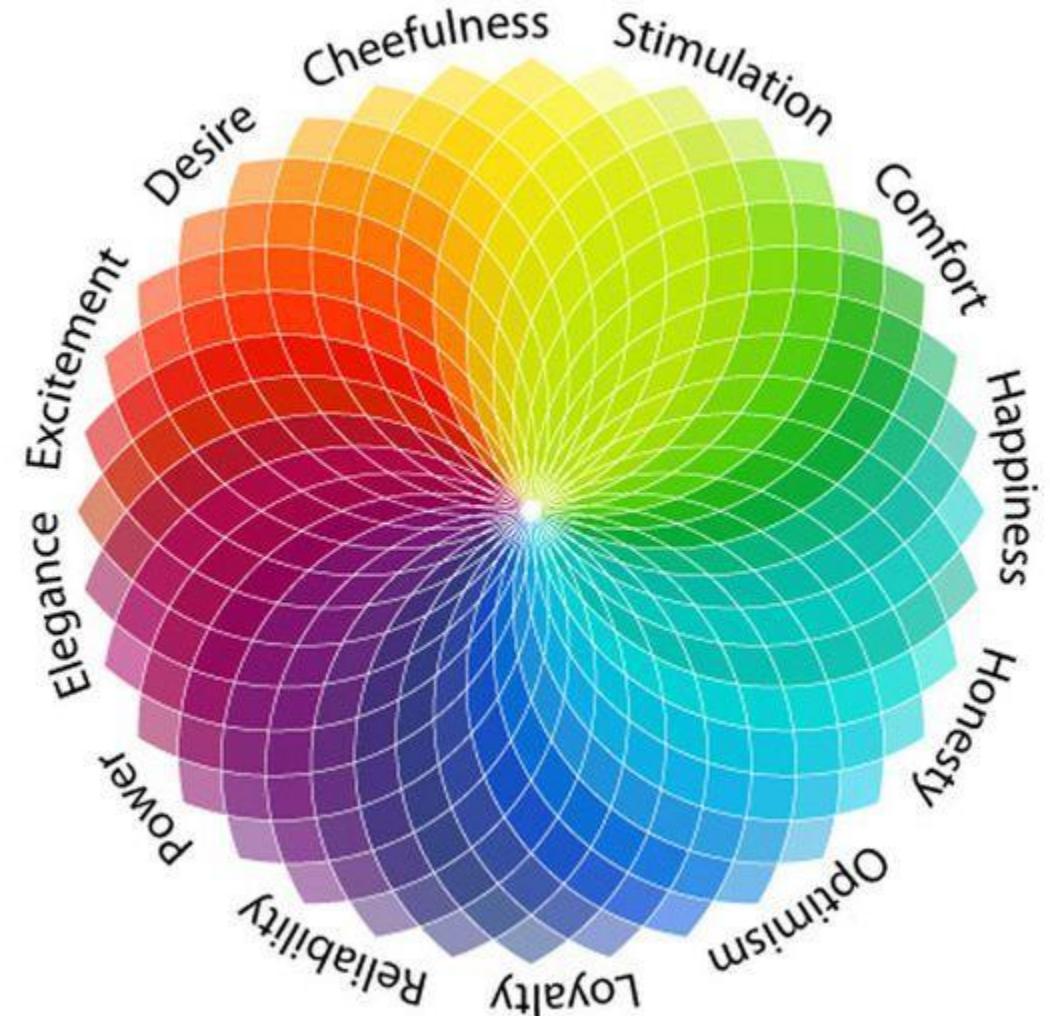
Google is the perfect example of how sometimes the secret of a logo's success lies in its simplicity and authenticity.



Color Theory

The Psychology of Color

Color can play an important role in conveying information, creating certain moods, and even influencing the decisions people make.



Color Theory

Cool colors

- Cool colors are generally associated with **peace, serenity or calmness**
- Include shades of **green, blue and purple**



Warm colors

- Warm colors are in turn associated with **energy, brightness, action and warmth**
- Include shades of **yellow, orange and red**



Color Theory

Natural Tones

- Neutral tones are easy on the eye and defer the user's attention to the content.
- You can use these as backgrounds.



Color Harmony

The arrangement of the colors in design in the most attractive and effective way for users' perception

Monochromatic

- A monochromatic color is created when we use one strong color with multiple variations of that one color.



Color Harmony

Monochromatic

Example:



Color Harmony

The arrangement of the colors in design in the most attractive and effective way for users' perception

Analogous

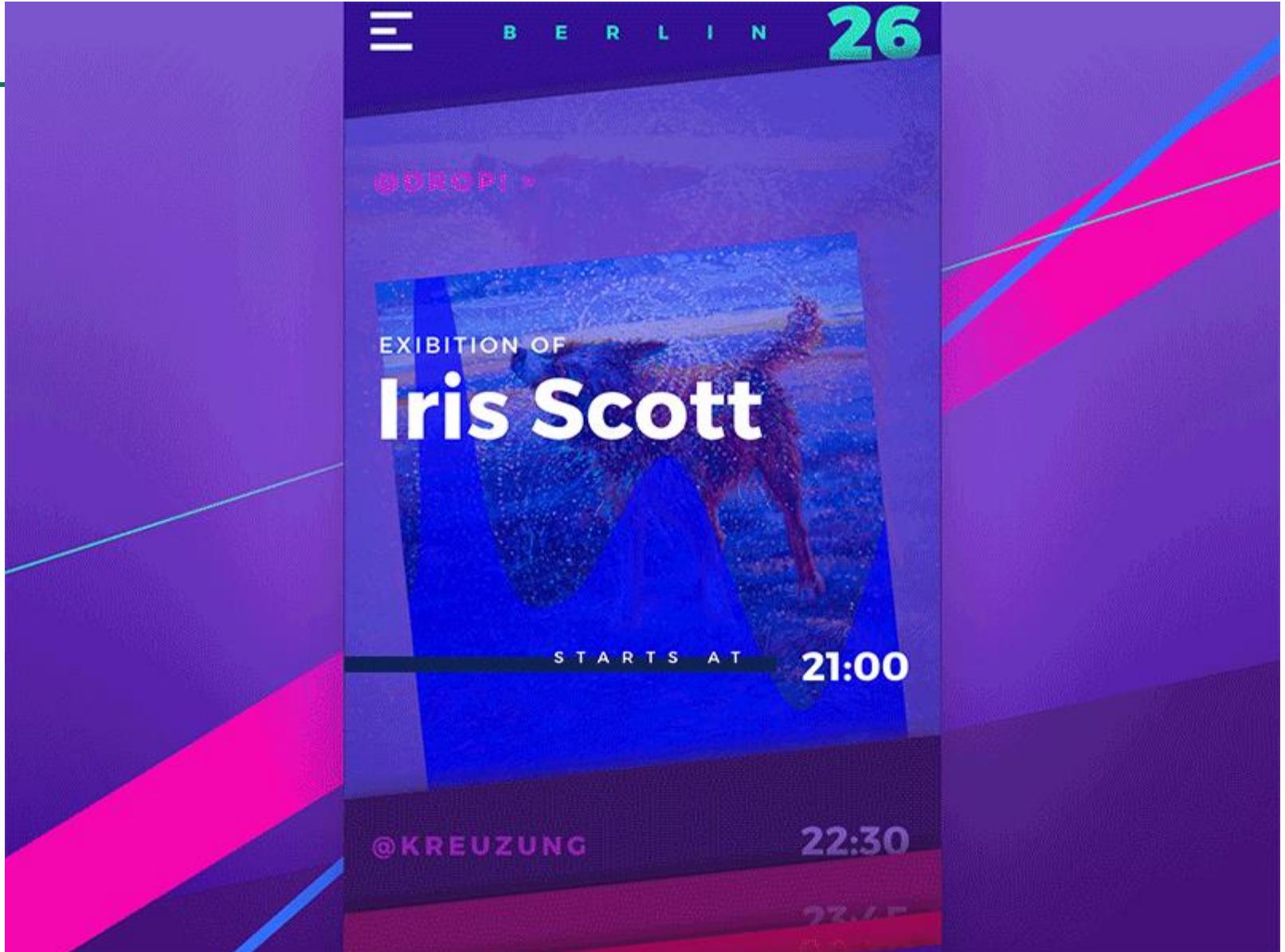
- Refer to colors that are next to each other on the color wheel like red, orange and yellow.
- An analogous color scheme is very pleasing to the eye as it can be often found in nature such as the sunset



Color Harmony

Analogous

Example:



Color Harmony

The arrangement of the colors in design in the most attractive and effective way for users' perception

Complementary

- A complementary color palette consists of two colors that are opposite on the color wheel such as **red** and **green**.
- It is useful to select one color that is **dominating** and another that **highlights** other important elements in the page.



Color Harmony

Complementary

Example:



Color Harmony

The arrangement of the colors in design in the most attractive and effective way for users' perception

Triadic

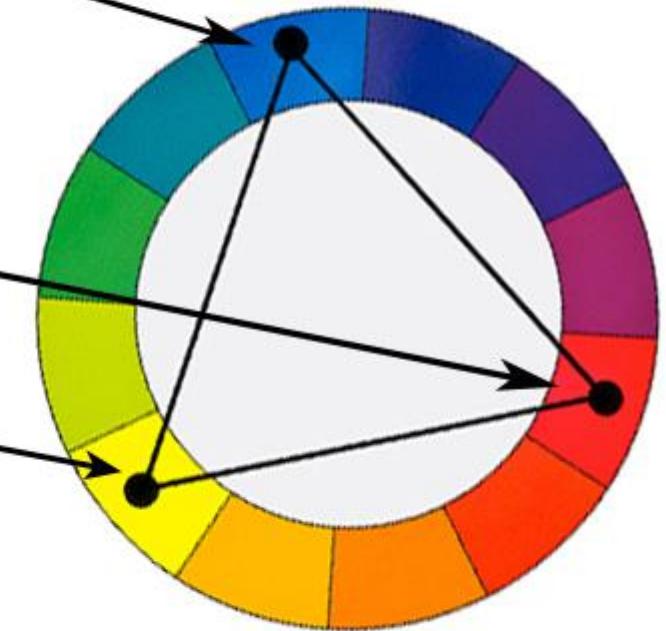
- A triadic color palette is when you use **three** colors that are equally spaced around the wheel.



Color Harmony

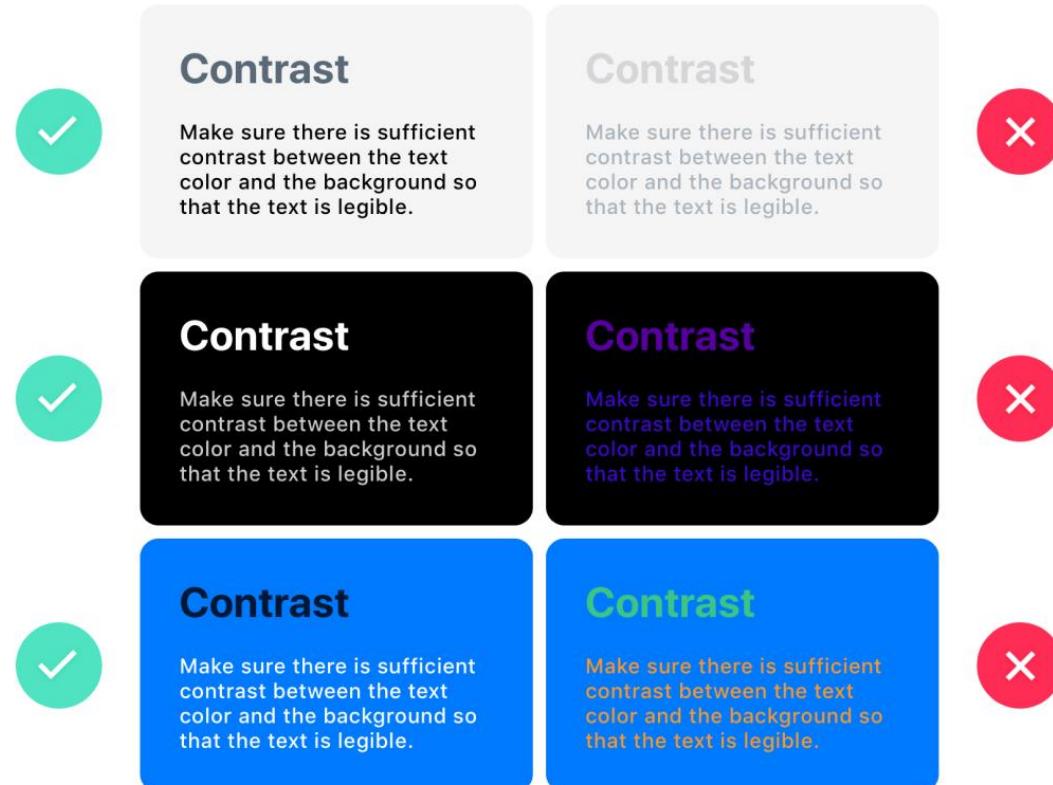
Triadic

Example:



Contrast

- Colors should be in the way of legibility.
- For good contrast, use opposite ends: white against black, light blue against dark blue, high brightness against low brightness.



Laws of UX

A collection of best practices that designers can consider when building user interfaces.

1. Doherty Threshold
2. Fitts's Law
3. Goal-Gradient Effect
4. Hick's law
5. Jakob's Law
6. Law of Common Region
7. Law of Similarity



<https://lawsofux.com/>

Laws of UX

Law of Common Region

Example on the left clearly denotes 3 different metrics while on the right, one could easily be confused



Laws of UX: Examples

1. In a fitness tracking app, a progress bar fills up as users complete daily workout goals. As they approach their goal for the day, the progress bar accelerates, encouraging users to complete the goal.
2. Most e-commerce websites place the shopping cart icon in the top-right corner of the page.
3. In a travel booking website, flight details, including departure time, airline, and price, are often grouped within a defined region or box.
4. On a smartphone, the "Back" button at the bottom of the screen is larger and easier to tap than the smaller "Settings" button at the top right corner.
5. In a task management app, using a consistent color or visual style for tasks with the same priority level helps users quickly identify and group tasks that require similar attention or action.
6. In a video editing software, if the number of available editing tools is too few, users might find it limiting. Conversely, if there are too many tools overwhelming the interface, users may struggle to find the ones they need.

UI Designing for VR

<https://marvelapp.com/blog/getting-started-vr-interface-design/>

<https://uxdesign.cc/lets-design-xr-ui-in-figma-and-bring-it-to-xr-with-no-code-a123b9b647ab>

<https://lawsfux.com/>

Q & A