Color Composition Of The Best University Website In Indonesia, Case Study Of University Of Indonesia, Gajah Mada University, Bandung Institute Of Technology

Arif Ranu Wicaksono1, Afiati Handayu Diyah Fitriyani2

1 Faculty of art and Design, Visual Communication Design, Sebelas Maret University, Surakarta, Indonesia
2 Faculty of Adab and Cultural Sciences, Library Science, UIN Sunan Kalijaga, Yogyakarta, Indonesia
arifranu@staff.uns.ac.id, afiati.fitriyani@uin-suka.ac.id

Abstract Color has a profound influence on everyday human life, both in the world of graphic design, painting, print media, interior design, presentation, politics and of course also on web design. Color is an interesting field to study because color affects psychological, cognitive, taste and color gives identity to each object it attaches. The color composition can be likened to two sides of the blade, if it is right to combine it will give a positive impression and if wrong in combining it will give a negative impression to people who see it. In this study the author will analyze the color composition on the website of world-class universities (University of Indonesia, Gajah Mada University, Bandung Institute of Technology) and try to interpret the meaning behind the color of the website based on color theory based on western culture.

Keywords Color, Color composition, Web

1. Introduction
Color can change taste, affect perspective, cover imperfections, change atmosphere and color can give identity. In this study the authors will analyze the color composition on the website of world-class universities, among others: University of Indonesia, Gajah Mada University, Bandung Institute of Technology, the selection is based on the ranking https://www.webometrics.info where Universitas Indonesia is a university website with a ranking of 1 in Indonesia, Gajah Mada University is the 2nd ranked University website in Indonesia and the last is the Bandung Institute of Technology is the 3rd ranked website in Indonesia [1]. The accuracy of the color composition is very important in determining the image of a university so that the color can suggest the behavior of the web user. The existence of this research is expected to provide insight on color and color composition in developing a University website that is in accordance with the image built by a University.

2. References
According to Thomas Young’s research, James Clerk Maxwel and Hermann von Helmholtz that the retina of the human eye has 3 cells called "cones". Ie S (shortwave) is sensitive to blue, M (middlewave) is sensitive to green, and L (longwave) is sensitive to red.

Color science is called Chromatic, color theory was developed by Alberti and followed by Leonardo da Vinchi, color theory received serious attention after it was developed by Sir Isaiah Newton the physicist through his writing Opticks [2].

Color is one of the objects of Human Computer Interaction (HCI) studies. In the HCI concept when designing an application or computer program, designers must understand color psychology, if a designer does not understand this, what often happens is mixing colors that make the eyes feel uncomfortable or get tired quickly because the eyes must always make adjustments to the display color used. Therefore, the use of color must be arranged so that the eyes do not have to make adjustments repeatedly [3]. In making the interface of a web must be really mature and properly conceptualized according to the theory of Human Computer Interaction and color theory.

Here is the meaning of color based on western culture [2].

<table>
<thead>
<tr>
<th>Color</th>
<th>Positive Meaning</th>
<th>Negative Meaning</th>
</tr>
</thead>
</table>
6th Bandung Creative Movement International Conference in Creative Industries 2019 (6th BCM 2019)

<table>
<thead>
<tr>
<th>Color</th>
<th>Meanings and Contexts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pink</td>
<td>Spring, Gifts, Appreciation, Admiration, Sympathy, Health, Love, June, Marriage, Femininity (feminine), Youth</td>
</tr>
<tr>
<td>Yellow</td>
<td>Health, Gold, Rays, Life, Sun, Luck, Joy, Happiness, Earth, Optimism, Intelligence, Idealism, Prosperity, Summer, Hope, Air, Liberalism, Feminine, Joy, Friendship, Taurus, Leo, (Yellow Gold), April, September, Courage</td>
</tr>
<tr>
<td>Green</td>
<td>Stable, Nature, Environment, Relaxed, Lush, Natural, Spring, Young, Prosperity, Luck, Enthusiastic, Generous, Going, Grass, Eternal Life, Air, Earth, Sincerity, Hope, Cancer (Bright Green), Renewal, Abundance, Growth, Health, Balance, Harmony, Stability, Islamic Symbols, August</td>
</tr>
<tr>
<td>Blue</td>
<td>Trust, Clouds, Water, Faithful, Peaceful</td>
</tr>
</tbody>
</table>

| Coolness, Confidence, Security, Sea, Sky, Peace, Harmony, Gentleness, Greatness, Conservatism, Water, Ice, Loyalty, Reliable, Cleanliness, Technology, Winter, Idealism, Peacefulness, Trust, Air, Wisdom, Strength, Endurance, Light, Friendship, Nobility, Nobleness, Peace, Truth, Love, Earth (Planet), Virgo (Light Blue), Piscer (Pale Blue), Aquarius (Dark Blue), July (Blue Space), February (Dark Blue) |

| Nobility, Spirituality, Creativity, Prosperity, Nobility, Sensual, Ceremony, Wisdom, Enlightenment, Brightness, Exaggeration, Pride, Libra, May, November, Wealth, Romanticism, Enjoyment |

| Arrogant, Arrogant, Cruel, Abusive, Grief, Envy, Sensual, Mystery, Excessive, Mourning, Impurity, Confusion, Exaggeration, Homosexuality |

| Land, Earth, Neutral, Warm, Protection, Quiet, Depth, Organism, Natural, Wealth, Simplicity, Stability, Tradition, Earth, October, Capricorn, Scorpio (Red Brown), Integrity, Stability, Simplicity, Friendship, Reliable |

| Blunt, Dirty, Bored, Not Matching the Times, Violence, Ignorance, Weight, Poverty |
### 3. Research Methods

The three websites as study material (University of Indonesia, Gajah Mada University, Bandung Institute of Technology) we extract the colors using the help of the Color Scheme Extraction Tool provided by www.colorcombos.com [4], after which the tool will provide the color composition on the extracted website. After all the colors are known, then determine the 3 dominant colors on the website. Then adjusted to the harmonious color composition and matched with the meaning of color according to the existing color theory.

#### 4. RESULTS AND DISCUSSION

#### 4.1. Website University of Indonesia

![Figure 1. Website University of Indonesia](image)

University of Indonesia which has a motto in Latin language: Veritas, Probitas, Iustitia (Truth, Honesty, Justice) [5], website address [www.ui.ac.id] [6], after the color extract process is found with a white background color and with 12 combinations as shown below:

<table>
<thead>
<tr>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remorse, Anger, Death, Satan, Fear, Fear, Anonymity, Anger, Willingness, Oldness, Rebellion, Sadness, Oldness, Rebellion, Sadness, Regret, Regret, Grieving.</td>
<td></td>
</tr>
</tbody>
</table>

![Figure 2. color extract of www.ui.ac.id](image)

The dominant color on the website is White, Gray. Yellow. Motto: Truth and Justice. represented by the color gray, while honesty is represented by the color White. For yellow, it becomes the spot color whose function is the point of interest. From the overall design of this website functions background colors and dominant colors, the selection of white is intended to achieve a high level of information or easily read by the user or user.

#### 4.2. Website Gajah Mada University (www.ugm.ac.id)

![Figure 3. Gajah Mada University](image)

| Black | Sturdy, Elegant, Strong, Mystery, Luxury, Modern, Sophistication, Formality, Prosperity, Style, Sex, Seriousness, January. |
Gajah Mada University which has a motto: Strong Rooted, High Towering [7]. website address http://www.ugm.ac.id. website address www.ugm.ac.id [8], after the color extract process is obtained with a white background color and with 20 combinations as shown below:

![Color Extract of UGM](image1.png)

Figure 4. color extract of www.ugm.ac.id

Gajah Mada University which has a motto: Strong Rooted, High Towering. website address http://www.ugm.ac.id The dominant colors on the website are Gray, Blue and Brown representing strong roots that mean loving the motherland or not forgetting the cultural roots. Blue means technology, while gray means modern, so it can be interpreted that blue and gray represent the motto: soaring high. What is meant is a center for the development of high science and technology.

4.3. Website Bandung Institute of Technology

![Website University of Indonesia](image2.png)

Figure 5. Website University of Indonesia

Bandung Institute of Technology which has the motto "In Harmoniae Progressio; Progress in harmony " [9], website address: www.itb.ac.id [10], after the color extraction process is obtained with a white background and 8 combinations as shown below:

![Color Extract of ITB](image3.png)

Figure 6. color extract of www.itb.ac.id

The dominant colors on the website are Blue, Green, Brown. The motto of progress is represented by blue, while the colors green and light brown represent harmony. And can be translated Creating Technology Science in harmony with nature and local culture of Indonesia.

5. Conclusions

After conducting this research the author can conclude that the University we studied, namely: University of Indonesia, Gajah Mada University, Bandung Institute of Technology, in determining the colors on the website was very careful, thorough, and reasoned very strongly and the color composition displayed on each website - Each university is able to reflect the University's motto. So before we read the motto written on the websites of each University, website users are able to receive messages / mottos implicitly from the color combinations displayed on their websites.

REFERENCES

[8] www.ugm.ac.id accessed 30 August 2019
[10] www.itb.ac.id accessed 30 August 2019