**Q&A: Master Thesis Proposal**

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The color palette extension is not quite clear to me what it is and how to do it. A color palette is basically a set of discrete data points in a color space. What is meant by a ‘closure’ of this set of colors by means of an ‘area’ or ‘linear’ function?

Thank you for your question. What I mean by this is the following: once the discrete data points of a color palette with 20 colors are plotted in color space there might be a way to connect the data points. If these data points are located on a hyperbolic function it is more safe to suggest that all data points on the hyperbolic function are colors belonging to the color palette. In other words, the color palette can be extended by all these data point colors. The color palette may then grow from 20 to 2000 colors belonging to the same color palette. Thus, a color palette reaching its maximum amount of colors of 2000 colors is said to be the “closure” of a color palette. There might be another function or area underlying the patterns of the data points which should be the subject of the research.   
  
For the classification, I think I understand the idea, it’s basically about defining, implementing and testing a distance metric between an extracted image color palette and a given set of palettes. That’s an interesting and clear problem to solve.

Yes.   
  
The determination of the ‘best color combinations’, however, is not fully clear to me. The first part of finding matching colors is unclear to me, the image conversion in the end is more clear.

On finding matching colors: given a color palette of 3 colors red, green and blue the colors are combined pairwise: red-green, green-blue, and blue-red. Then a group of say 200 people are asked to rank these three color combinations, for example: blue-red, red-green, green-blue. The original image will have two predominant colors represented by two objects in the image. Those two objects will be converted from say green-blue to blue-red because it is the top ranked color combination. Following this procedure, the image will have the highest average popularity in terms of coloring.   
  
I also have not heard from Prof. Flückiger on her level of interest and possibility to help guiding the project.

Is there a way to get the contact details of Alexandra?

Right now I see a possibility for this topic, probably after one more iteration together with Prof. Flückiger.

Zum Integrieren in das Proposal:

Automatische Klassifikation der manuell erfassten Farbschemata und Farbkontraste.

Zum Bearbeiten und Integrieren in das Proposal:

Cohen-Or, Daniel; Sorkine, Olga; Gal, Ran; Leyvand, Tommer; Xu, Ying-Qing (2006): Color Harmonization. In: *ACM Transactions on Graphics*, 25,3, Juli, S. 624–630, (= <http://portal.acm.org/citation.cfm?doid=1141911.1141933>, abgerufen 06/08/2017).

Dann wäre es interessant, auf der Basis solcher Klassifikationen Bildersammlungen automatisch nach ähnlichen Kontrasten / Schemata zu durchsuchen.

Haben Sie womöglich an eine bestimmte Bildersammlung/en gedacht?

In der VIAN WebApp sind alle diese Begriffe schon mit Bildern erklärt.

Wie erhält man Zugriff auf die VIAN WebApp?