

Real-Time User-Guided Image Colorization with Learned Deep Priors

- There are some predefined filters provided by most of smartphone that can be used to edit a photo.
- In deep learned based image colorization user just need to select different points in a photo with desired color then model interactively produce output.



Real Time Modification tool

iColor

ab Color Gamut

Drawing Pad

Result

Suggested colors

Recently used colors

Color

Gray

Load

Save

Restart

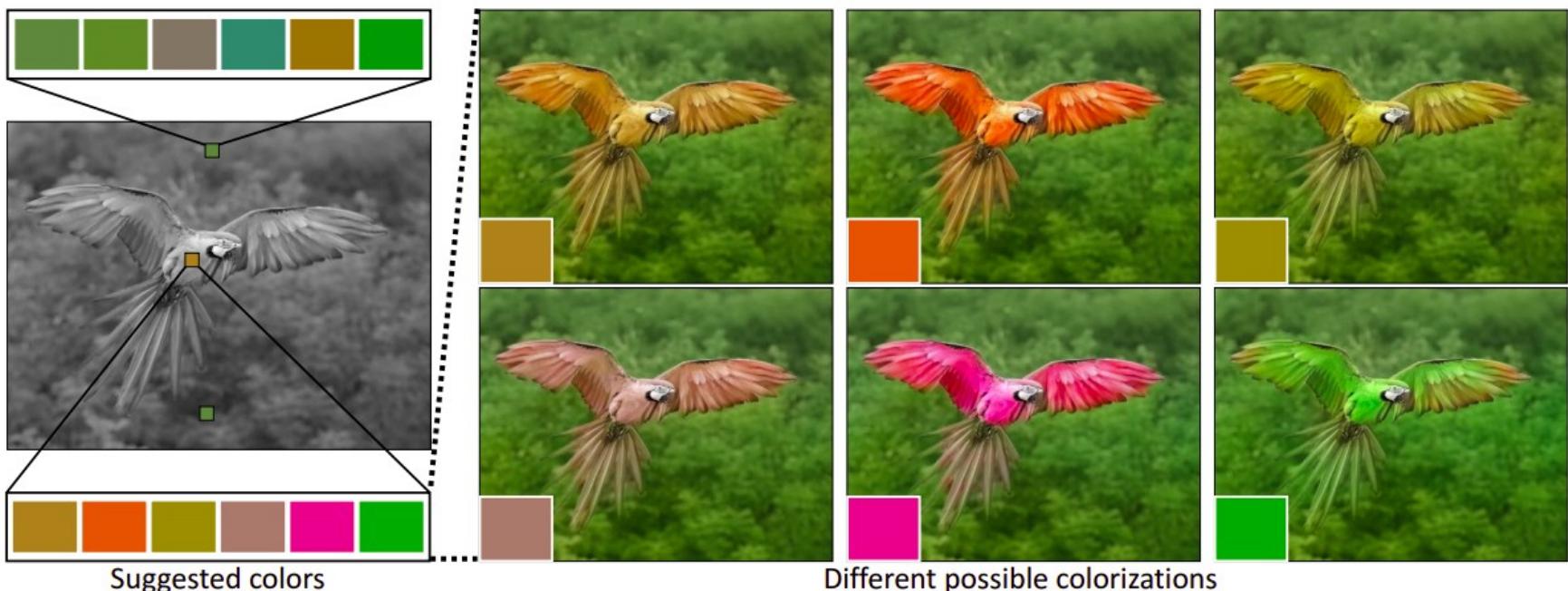
Quit

The screenshot displays the iColor application interface. On the left, the 'ab Color Gamut' panel features a triangular color space diagram with a central crosshair. Below it, a row of 'Suggested colors' swatches includes brown, olive, purple, teal, red, green, blue, and grey. A 'Recently used colors' list shows a single entry of olive green. The 'Color' section at the bottom contains a color bar and a 'Gray' checkbox. The main workspace is divided into 'Drawing Pad' and 'Result' sections. The 'Drawing Pad' shows a grayscale photograph of a parrot perched on a branch, with several small colored squares (brown, purple, teal, red) placed on its feathers. The 'Result' section shows the same parrot with its feathers colored according to the squares. At the bottom, buttons for 'Gray', 'Load', 'Save', 'Restart' (highlighted in blue), and 'Quit' are visible.



Different Colorization

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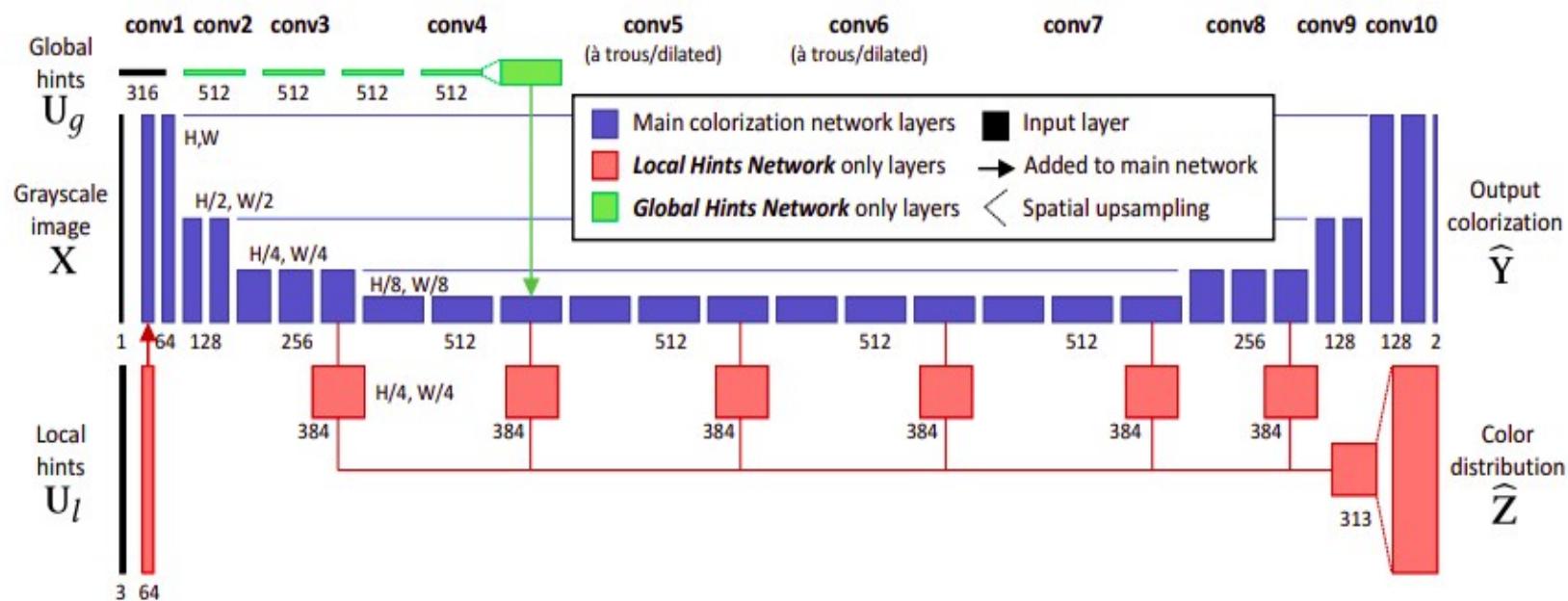
Market Impact & input/output

- As far as I know currently no smartphone has feature like interactive deep learning based colorization.
- Here input is gray scale image output is RGB image.



Implementation

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References

- <https://richzhang.github.io/ideepcolor/>
- <https://arxiv.org/abs/1705.02999>
- <https://youtu.be/eL5ilZgM89Q>
- <https://youtu.be/rp5LUSbdsys>

