Competitive Analysis of Image Manipulation Programs

The main product that comes to mind when doing a competitive analysis of my version of photoshop is obviously Adobe Photoshop. The most well known photo manipulation software and has just about every feature imaginable. The most compelling features of Adobe Photoshop that I also plan on including in my project are content aware scaling (seam carving), healing brush, and blending images by an adjustable amount. I and many other users primarily use the program for photo manipulation and rarely take advantage of the hundreds of other drawing and illustration tools. However, the vast number of tools available cause the program to be extremely slow and often freeze after doing a particularly computationally heavy edit. Furthermore, Adobe Photoshop is notorious for having a huge learning curve, and can be less accessible for less technologically inclined users. My program will be far more lightweight. I plan on choosing features that are specialized for image manipulation. As a result, my version of photoshop will have a much simpler interface and fewer tools, resulting in an easier learning curve. It'll do the things it needs to do, without the distraction of tools irrelevant to photo editing.

Another common photo editing tool is Affinity Photo. Though newer, and not as well known, the program is extremely similar to Adobe Photoshop as they are trying to take over part of their market share. The entire interface is reminiscent of Adobe's, the layout and even keyboard shortcuts are almost exactly the same. A key difference is that the icons in Affinity Photo are in color while they are black and white in Adobe Photoshop. Proponents of Affinity Photo says the color of the icons make them easier to recognize, while Adobe claims that color icons mess with the user's color perception. For the purposes of my project, ease of use is more important that slight variations of color perception so I will be using color icons. While Affinity Photo has many of Adobe's features, it does lack content aware scaling (seam carving) and has all of the pitfalls of a robust and versatile program (it is however faster, as it was written for newer technology).

Pixlr is another image manipulation software. It's main difference from the previous is that it's hosted entirely online and is free. While this makes it a lot more accessible and doesn't require a download, it also needs wifi to work. For a user who doesn't have constant internet access that would be a problem. Like Affinity, it seems to have modeled it's user interface from Adobe Photoshop, and again does not have seam carving. In addition, it does not have content aware fill or an automatic healing brush. However, interestingly, a few of it's tools, such as smudge seem to work faster than both Affinity and Adobe Photoshop.

A fourth popular image manipulation software is Pixelmator. It's generally chosen over Adobe Photoshop for it's price not features. A common complaint is that the tool bars in the program aren't docked. Mine will be docked for a constant user interface and predictability. Unlike the other programs mentioned before, Pixelmator doesn't display the user's edit history or allow the user to record actions. I find the action recorder to be an important feature when making similar

edits to many images and plan on including it in my project. Otherwise, the features of Pixelmator are by and large the same as Adobe Photoshop and is a valid alternative.

A final popular program is GIMP. GIMP is open source and free, and as a result is more accessible than the other image manipulation softwares on my list. Gimp's layout is very similar to both Adobe Photoshop and Affinity Photo, with docked toolbars and color icons. Notably, it is different from every other program listed here in that it's main color scheme is light gray. Mine will be a neutral gray to make the picture stand out, keeping with research from Adobe about color perception. Overall, GIMPs features are comparable with the rest, and it shares the same pitfalls of too many tools being a distraction for simple image manipulation.

My major goal will be to simplify the interface while keeping intact many of the core features of image manipulation. My program will also be dynamic and intuitive so users can resize the window as desired. Navigation will be kept simple and process focused.