Compare and Contrast Essay Examples - Adobe Photoshop vs. Adobe Illustrator

The 21st century is the age of visual information. Wherever you look, you will be surrounded by all kinds of graphics, charts, commercials, logos, banners, and other images. Be it a website, a billboard, a magazine, a comic book, a package—all the images are created by graphic designers: people whose profession is to draw. Unlike usual artists, graphic designers mostly work with customers, creating images based on their specific requirements; there is also one more difference: instead of a canvas, pencils, and dyes, graphic designers utilize special software progams. Among the most popular and the most advanced programs, Adobe Photoshop and Adobe Illustrator are the favorites of the majority of graphic designers. Many people who want to learn any of these pieces of software from scratch face the most basic question: which program to start studying with, and what are the differences between Photoshop and Illustrator?

The most basic difference probably lies in the principles each of these programs operates with. Photoshop works with raster graphics. What does it mean? A raster image consists of pixels, each emitting the light of three main colors: red, green, and blue (the so-called RGB standard). The mixture of these three colors provides all the range of colors our monitors can display. When all the pixels in a certain area of a screen shine at their maximum capacity, this area will appear white; less intensity gives darker shades, up to black. The main limitation of raster graphics is that pixels cannot maintain their appearance as the image becomes larger; for this reason, when you zoom into a raster image, it becomes blurry. Unlike Photoshop, Illustrator operates with vector graphics—this means that the way an image is rendered is defined by mathematical formulas, the variables in which a designer inserts by using Illustrator's tools (PsPrint). For example, a curved line drawn in Photoshop will consist of pixels; its shape and borders are defined by the way a designer brushed over the "canvas," and when you enlarge it, pixels will be able to sustain the shape of the drawn object only until a certain limit—after you surpass it, the image will become blurry. In Illustrator, the shape of the line is derived from the coordinates set by a designer's drawing tool. Respectively, when you enlarge such an image, it will not lose its quality, because pixels have nothing to do with the image's creation here (although your monitor still uses them to display the result of the mathematical calculations behind the image).

Photoshop is unparalleled in terms of creating realistic, nature-like images. A skilled designer can create a Photoshop illustration that will look incredibly realistic, to the extent that it is difficult to distinguish it from reality; besides, Photoshop can edit already existing images with great precision—how many times have you looked at a celebrity's photo in a magazine and wondered, which part of it is "natural," and which is edited? The only drawbacks here are that a designer working in Photoshop must have initial images to work with, and also the scale: after a certain threshold, the image will pixelate and inevitably lose quality. Illustrator cannot match with Photoshop in terms of realism or editing capabilities, however Illustrator's main purpose is creating brand new images from scratch, and designing all kinds of elements which must look perfect under any conditions. For example, a company's logo will most likely be created in Illustrator, since whatever scale it is set to, it will always retain its shape and other properties. Illustrator is widely used for creating brand books, corporate style, fonts, packages, and other similar production (Designcontest.com). Although all this does not mean that a talented designer cannot use each of these programs however he or she likes.

Shortly speaking, raster graphics (and respectively, Photoshop) is better to use when working with photos; vector graphics, on the other hand, is required when you need to create an illustration from scratch (PsPrint).

Both Adobe programs—Photoshop and Illustrator—are the most convenient and essential tools for any graphic designer. The main difference between them lies in the principles they work with: Photoshop operates with raster graphics, and Illustrator utilizes vector graphics; based on the advantages and shortcomings of these principles, the purposes these programs are used for also differ: Photoshop is mainly used for editing and image post-processing, and illustrator is great for drawing, creating images from scratch. A skilled designer uses both of these programs to achieve incredible results.

Works Cited

"The Difference Between Illustrator and Photoshop." DesignContest. N.p., n.d. Web. 21 Feb. 2017. .
"What's the Difference Between Raster and Vector?—Resources." PsPrint. N.p., n.d. Web. 21 Feb. 2017. .