

SECOND EDITION 2024



**GRAPHIC**

# Design

FUNDAMENTALS

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This Booklet is my gift to help guide a new designer starting out on their journey in the era of Artificial Intelligence

# TABLE OF CONTENTS

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<i>ii</i>	Qualities of good Graphic Design software
<i>Page 1</i>	Principles of Graphic Design
<i>Page 2</i>	Get Started
<i>Page 2</i>	Using Artboards/Pages
<i>Page 3</i>	About Layers
<i>Page 3</i>	Working with shapes
<i>Page 4</i>	Applying Effects
<i>Page 4</i>	Typography
<i>Page 5</i>	Color
<i>Page 5</i>	Layout & Spacing
<i>Page 6</i>	The 2 Types of Images
<i>Page 8</i>	AI Assistants
<i>Page 9</i>	Examples of AI Design Platforms/Tools
<i>Page 10</i>	Examples of Online Design Platforms
<i>Page 10</i>	Advantages of Online Design Platforms
<i>Page 10</i>	Some Useful Websites for Designers
<i>Page 11</i>	About the Author

# QUALITIES OF GOOD GRAPHIC DESIGN SOFTWARE

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## **Easy to Use:**

The software should be simple to navigate so anyone can quickly understand how to use it without needing too much help.

## **Plenty of Tools:**

It should offer all the tools needed for different types of designs, like creating and editing images (both raster and vector), text, and colors, so you can create anything you want.

## **Fast and Responsive:**

It shouldn't lag or slow down, even when working on large projects, so you can work quickly and efficiently.

**Customizable:** You should be able to adjust the workspace and tools to fit your personal style and needs.

## **Works on Different Devices:**

The software should work on multiple operating systems like Windows or Mac, and allow you to share files easily between them.

## **Good Support and Help:**

It should have tutorials, a helpful community, and customer support to assist you whenever you're stuck.

## **Works Well with Other Programs:**

It should easily connect with other popular design tools, making it easier to work on projects using different software.

# PRINCIPLES OF GRAPHIC DESIGN

Just like any skilled craft, graphic design has its core principles. Understanding these principles will help you create designs that are not only visually appealing but also effective in conveying a message.

A few areas to look at:

## Balance and Composition:

Imagine arranging the elements on your canvas like placing weights on a seesaw. Learn how to create a sense of visual equilibrium and guide the viewer's eye through your design.

## Hierarchy and Emphasis:

Not all elements are created equal. Learn how to use size, color, and placement to establish a clear hierarchy and draw attention to the most important information.

## Contrast and Color Theory:

Color is a powerful tool that can evoke emotions and set the mood for your design. Understanding color theory will help you create harmonious palettes and make your designs stand out.

## Typography:

The right font can make or break a design. Learn the basics of typography, such as choosing appropriate fonts, proper kerning, and leading, to ensure your text is clear and visually compelling.

*Once you have a solid grasp of design principles, it's time to let your creativity take flight! These principles are not meant to stifle your artistic spirit; they're the foundation that allows you to build truly innovative and impactful designs.*

Here's where your instincts come in. Don't be afraid to experiment, break the mold and explore different design styles. Develop a keen eye for what works and what doesn't. Stay curious, keep learning, and most importantly, have fun!

The world of graphic design is vast and ever-evolving; carve your own path in this exciting industry. Unleash your inner designer and start creating!

~ Sidney Nkoba

*Brand developer | Graphic Designer | Software engineer*

# Get Started

Graphics Design Software are related in the way they work. You will find features and tools that look alike in most good design software.

## *Using Artboards/Pages/Frames*

Every new design you create is created on an artboard. In some other design software they call the artboard by another name; some call it a page, or frame. In any case, the artboard is like the white piece of paper on which you create your design, whether a flier, a book, a magazine, brochure, name it...



### Important properties of an artboard:

#### Dimensions:

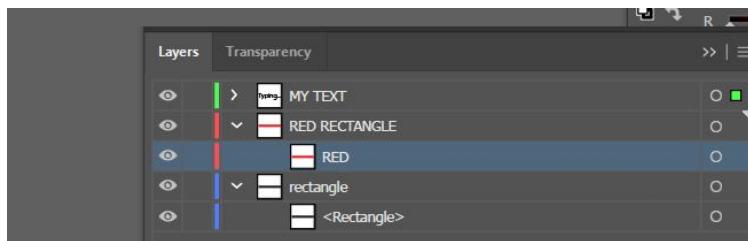
You must look out for the **LENGTH** vs **WIDTH** of an artboard before you start designing. This is very important especially depending on what you intend to use the design for. It will affect the quality of your output. The unit used in most design software to measure length or width is "**PIXELS**" or simply "**px**". Some other commonly used units include cm, mm, inches, etc. It is because of this factor that we have certain printing standards like A4, A3, A6, etc. for paper sizes. Each of these sizes is a unique combination of Length \* Width. In some designs we use **PORTRAIT** format (Length is shorter than Width) while in others we use **LANDSCAPE** (Length is longer than Width) Some examples of artboard/page sizes and their different uses;

Dimensions (Page Size)	USE/ APPLICATION	Portrait	Landscape
(A4) - 595px by 842px	Printing letters, posters		
(A3) - 842px by 1191px	Printing posters		
2560px by 1440px	Youtube Channel		
820px by 312px	Facebook Cover		
1050px by 600px	Business Cards		
For any other sizes (Search the internet)			

~ Alfred Ochola  
Graphic Design Expert | Software Developer | Tutor

# Layers

Most design software works with layers. Layers are so powerful, they enable you to organize your work and group various components of your design together. Layers help keep your design organized by separating different elements such as text, images, and shapes. This makes it easier to manage and edit specific parts of your design without affecting others. In some platforms like Figma and Adobe, you can even lock or hide a layer with its components. You can duplicate, reuse, rename and rearrange specific layers. This helps you avoid recreating designs that are needed in more than one page/ place.



# Working with Shapes

Most design software/platforms have a tool called a pen which you use to draw a shape, any shape of your choice. The pen tool can draw straight or curved lines. The shape can either be hollow with only an outline called a STROKE (a stroke can be a solid or dotted line/curve, with any color of your choice), or the shape can have a FILL (fill it with a plain color or a gradient).



**Mastering Shapes  
is important if we  
are to create  
great LOGO  
Designs**

# Applying Effects

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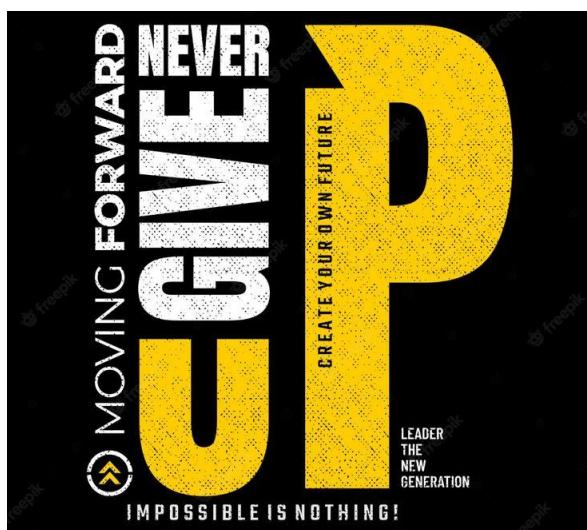
The common effects used in designs include: Shadows, Blur, **Contrast**, Brightness, Levels, **Saturation**, Filters, Transformations and Opacity. These techniques help in creating unique designs like silhouettes, etc. see samples below;

## Typography

Typography simply means the way you design and arrange your text on the design to communicate your message in a clear, and visually appealing manner. For good typography, one must consider the following factors:

- Font size
- Font family
- Font style (italics, normal, bold, thin, etc.)

It is good practice to use 2 or 3 font-families in the same design, but those fonts must complement one another.

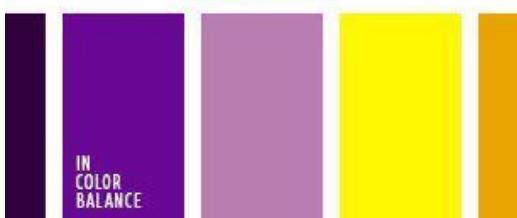


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The following websites can offer you free fonts.

- <https://fonts.googleapis.com/>
- [www.dafont.com/](http://www.dafont.com/)
- <https://www.fontspace.com/>
- <https://www.1001fonts.com/>
- <https://www.fontsquirrel.com/>
- etc.

# COLOR



Colors make designs look good and affect how people feel.

## WHAT YOU NEED TO KNOW

**COLOR PALETTES:** Color palettes are groups of colors picked for a design. They include main (primary) colors, and Secondary (minor) colors.

**HARMONY:** Harmony means using colors that look nice together to make the design look nice.

**CONTRAST:** Contrast means using different colors (dark vs light) to make things stand out.

**COLOR BALANCE:** means making sure colors look nice together and nothing is too strong or weak.

**CONSISTENCY:** Consistency means using the same colors in different parts of a design to make it look good.

**ACCESSIBILITY:** Accessibility means making sure colors are easy to see for everyone, even people who can't see colors well.

# LAYOUT & Spacing

A layout is how things are arranged on a page or screen. It's about putting words, pictures, and other design items in a nice order so it looks good and makes sense.



Below are some factors to consider for a good layout:

- 1. Balance:** Keep things even to make designs look nice.
- 2. Order:** Arrange things neatly so it's easy to understand.
- 3. Readability:** Make sure text is easy to read by giving it space.
- 4. Grouping:** Put related stuff close together to show they belong.

- 5. Guiding Eyes:** Use space to lead people's eyes where you want them to go.
- 6. Stand Out:** Give important things more space so they catch attention.
- 7. Consistency:** Keep spacing the same for a neat and professional look.
- 8. Room to Breathe:** Don't crowd things; give them space to stand out.

# The 2 Types of Images

There are 2 types of images in Graphics Design; **Raster Images** & **Vector Images**. The choice of which ones to use depends entirely on why you are creating the design.

**Created & Edited using Adobe Photoshop, Canva, Figma, etc.**

R A S T E R — I M A G E

Raster image formats include: ([PNG](#), [JPG/JPEG](#), [GIF](#), [TIFF](#), [BMP](#), [PSD](#), [RAW](#) etc.).

Raster images are made up of a collection of individual pixels (tiny boxes), each with its own color value.

## Characteristics of raster images

- **They are pixel based.** Pixels are small tiny boxes (dots) that make up a photo. This is why pixels is a unit commonly used to measure length in Graphics and Web Design. A high resolution raster image has so many pixels per inch (ppi), common ones include 72ppi (for screen use) and 300ppi (for print-purposes). Another unit for measuring resolution or picture quality for raster images is DPI (Dots Per Inch).
- **They are hard to Edit.** They only have one layer and the text can not be separated from the images to edit them individually.
- **They can't be made bigger easily:** If you make a raster image bigger, it might look blurry because it stretches the pixels.
- They are good for camera photos.
- (JPEG, PNG, and GIF) are supported by many photo viewer apps and software on phones, laptops and tabs.



# File Formats

## VECTOR IMAGES

Vector images are pictures made of lines and shapes that can be resized without getting blurry/ losing picture quality.

Vector file formats include [SVG, EPS, AI, PDF, etc.](#)

Created and Edited using [Adobe illustrator, Figma, etc.](#)



### Characteristics of vector images

- **Scalability:** Vector images can be resized without losing quality, making them ideal for various applications and sizes.
- **Editable:** Vector images are made of lines and shapes defined by mathematical equations, allowing for easy editing of elements like colors, shapes, and sizes.
- **Small File Sizes:** Vector files are typically smaller in size compared to raster images, as they only contain mathematical data rather than pixel-based information.
- **Resolution Independence:** Vector images maintain sharpness and clarity regardless of the size or resolution at which they are viewed or printed.
- **Ideal for Graphics:** Vector images are well-suited for graphics, logos, illustrations, and other designs that require crisp lines, smooth curves, and scalability.



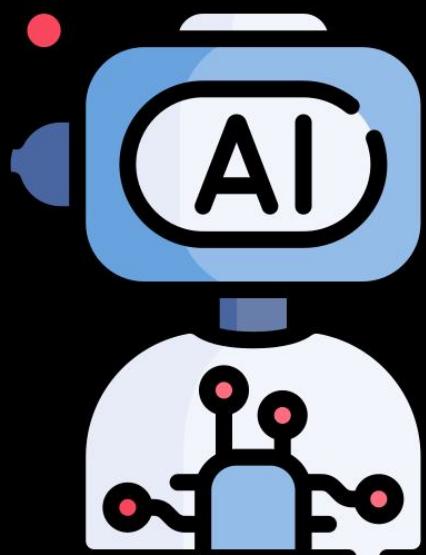
# AI Assistants

Modern Graphic Design Software like Online platforms & Adobe Photoshop have many functions performed by Artificial Intelligence. However, it is a good idea to have a background knowledge of how exactly the AI does what it does. This way you are able to instruct it to give you the best results.



*The easiest way to get started with Graphic Design is to use AI-Powered Platforms and Templates*

## Some AI-Powered Design Functions



1. **AI Image Generation**
2. **Auto-removing picture background** using Adobe Photoshop, Canva, etc.
3. **Predictive Design.** (useful for clearing or replacing certain parts of a picture e.g. pimples, etc...)
4. **Image enhancement, and manipulation.** (for example applying filters easily)
5. **Selecting Images:** Quickly select a portion of the image that you want to edit.
6. **Make Pics Bigger Without Getting Blurry:** Increase image size without losing sharpness. Online AI platforms can help with this.
7. **Move Things Around Smoothly:** Adjust objects in photos easily with smart tools.
8. **Make pictures clearer.**
9. **Typing assistant (correct grammatical errors e.g. in Figma and Canva)**
10. **Etc.**

# EXAMPLES OF AI DESIGN PLATFORMS

## AI PHOTO GENERATORS



### Recommended

- <https://designer.microsoft.com/>
- <https://www.canva.com/ai-image-generator/>
- <https://pixlr.com/image-generator/>
- <https://www.imagine.art/>
- etc.

## AI LOGO DESIGNERS



### Recommended

- <https://www.canva.com/create/logos/>
- <https://www.design.com/maker/>
- <https://www.brandcrowd.com/maker/logo/>
- etc

## AI FLIER DESIGNERS



### Recommended

- <https://www.canva.com/create/posters/>
- <https://www.canva.com/create/>
- <https://designer.microsoft.com/design-creator>
- etc.

# EXAMPLES OF ONLINE DESIGN PLATFORMS



- <https://www.figma.com/> Recommended
- <https://www.canva.com/> Recommended
- <https://www.visme.co/>
- <https://designwizard.com/>
- etc.



## Advantages of Online Design Platforms

1. **Easy to Access:** Online design tools are on the internet, so you can use them from anywhere using any PC/ laptop with the internet.
2. **Collaboration:** With online tools, you and your friends can work on one design at the same time, even if you're in different places.
3. **No Downloads or Installation required:** You don't need to download or install any software to use online design tools. Just open your web browser, login with your email and start designing.
4. **Always Updated:** Online tools automatically get new features without you having to do anything. They're always up-to-date unlike traditional software like Adobe Photoshop that require manual updates.
5. **Cheaper to Use:** Online design tools are often cheaper than traditional software. You pay a small fee each month instead of a big price all at once. Some like Figma and Canva have a good free package.

## Some useful Websites for Designers

1. Download free editable design templates
2. Download HD Photos having no background
3. Download icons
4. Download design templates
5. Millions of design samples to inspire you
6. Download HD Photos having no background
7. Download Copyright-free HD camera photos
8. Download Copyright-free HD camera photos

- <https://www.freepik.com/>
- <https://www.pngegg.com/>
- <https://www.flaticon.com/>
- <https://www.vecteezy.com/>
- <https://www.pinterest.com/>
- <https://pngtree.com/>
- <https://unsplash.com/>
- <https://www.pexels.com/>

# ABOUT THE AUTHOR



*Alfred Ochola*

Alfred has worked in the Art and Design Industry for **over 12 years**. During this time, he has by the Grace of God worked as an **Editorial Cartoonist** for Monitor Publications in 2012, **Book Illustrator** for MK publishers, **Motion Graphics Artist** for Lighthouse Television, and **Graphic Designer** for Ecopharm chain of Pharmacies and World Vision Uganda.

See all the techniques discussed here in action



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