User Interface Design of a Mobile Application for Creating Digital Posters

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Abstract. The purpose of this study was to determine the user interface design of mobile application in making attractive digital posters. The mobile application for making this poster is targeted at users who are unfamiliar also with the minimum skills. Where users can take advantage of free tools and templates that can be used by custom. The method used in this research is a descriptive visual method by testing an application called Canva. This poster maker application provides many templates in various formats. They also provide a choice of images, fonts, or some other design object. Applications for making posters are perfect for individuals who have many activities for promotion. It can be used for school activities, offices, competitions, even for an online shop. All of this can be done easily by using an effective and efficient mobile application to convey information. the conclusion is that a good application is one that easy to use. This criterion is important for choosing the best application that is easy to use by everyone.

1. Introduction

The user interface development process focuses attention on understanding users and acknowledging demographic diversity [1]. Creating posters, banners, invitations or greeting cards is now much easier than it was a decade ago. Nowadays there are a lot of web-based, mobile or desktop-based tools available for use. Some can be used free of charge, others are of premium status for a fee. Posters are two-dimensional products, a one-page formatted used to inform or to influence or to promote something. The main purpose of making posters is to communicate or deliver messages [2]. Now the need to create posters is increasing due to the efficiency of time and money. One means of being able to create fun digital posters is a smartphone that can be featured both in terms of specifications and from the comfort of the screen. One of the most interesting tools for making posters is called Canva. This application provides an easy template for making posters so that users just need to put the pictures and texts. Canva is a graphic design app that bridges its users to easily design various types of creative materials online. Starting from designing greeting cards, posters, brochures, infographics, to presentations. Canva is currently available in several versions, web, iPhone and Android.

User interfaces come in numerous different forms, some good and some are bad. The look, feel and general usability of a user interface is extremely important, especially on a mobile application. A badly designed user interface typically leaves a user with a poor lasting impression of the company

with which the interface is associated [3]. A good user interface design promotes easy, natural, and engaging interaction between the user and the system, making the user forget that s/he is using a computer [4]. User interface is not only about color and shape, but also about presenting the right tools to the user to be able to achieve its goals. In addition, the user interface is more than just buttons, menus, and forms that must be filled by the user [5]. As the iterative design process continues, a user interface tool kit may be used to complete the construction of the interface [6]. Android's default user interface is mainly based on direct manipulation, using touch inputs that loosely correspond to real-world actions, like swiping, tapping, pinching, and reverse pinching to manipulate on-screen objects, along with a virtual keyboard. In making a good poster display, it must be supported by the interactivity offered by the mobile application. Visual elements must be able to be displayed and used in the application so that users are free to explore the creativity previously presented by computer devices. The imaging algorithm based on fan beam array projection is very promising from an application point of view, but they are completely lacking a user-friendly interface that would make their application easier, faster, and more reliable, hence side spread uses is limited [7]. Ideally the interface is not only the intermediary, the assistant, but also the means controlling the level of load of the user and his emotional state [8].

The purpose of this research was to analyze user interface design of an application for creating digital poster. In this research used device which is a smartphone based on Android platform. Android is a mobile operating system developed by Google, designed primarily for touchscreen mobile devices such as smartphones and tablets.

2. Methods
The method used in this research is visual analyze to described how to use Canva by testing an Android-based application, version 2.87.0, updated on November 11, 2020. Using an instrumental case study approach in order to produce a conclusion that can be applied in designing a mobile-based application for creating posters. Testing activities were also carried out to several users in terms of trying to make a poster. See how they interact with Canva and try out various features contained in the application.

Canva's current general stream is almost the same as anything in its category online. User sign up (either with Google or an email address) and then just follow the breadcrumbs. Canva will ask to select the type of chart users want to create, then suggest various visual templates for them. After select the layout and template they want, then adjustments appear. Everything is drag and drop, and text is editable like text boxes in other graphic design software.

3. Results and Discussion
Canva's history begins in 2012, on January 1st, it was founded by Melanie Perkins who previously also set up Fusion Books, a well-known book publisher in Australia. In the first year of its debut, Canva took off by posting a record 750,000 users [9].

Five years on, in 2017 Canva has reached a phase where the company starts to book a profit. At that time they already had 200 well-known employees in the Australian and San Francisco offices. One of the biggest revenues came from users, which amounted to 294,000 users. As of 2017, Canva has 10 million users with service coverage in 169 countries. At the end of 2020, Canva already has more than 50 million users who are recorded in additional information of applications on the Play Store. Canva is free to download and is quite light in size at only 34MB. So, entry level devices with 1GB RAM and 8GB of memory should be able to use it.

When the first application was opened, Canva welcomed with four posters that briefly showed the features in it. Users can choose to see all of them or skip by tapping the skip option at the bottom left. Next, users are required to create an account - a standard procedure for most internet services. After logging in, users will immediately be greeted by a row of templates grouped by platform, such as Instagram Post, Instagram Story, Facebook Post, Logos, Posters, Invitations, and so on.

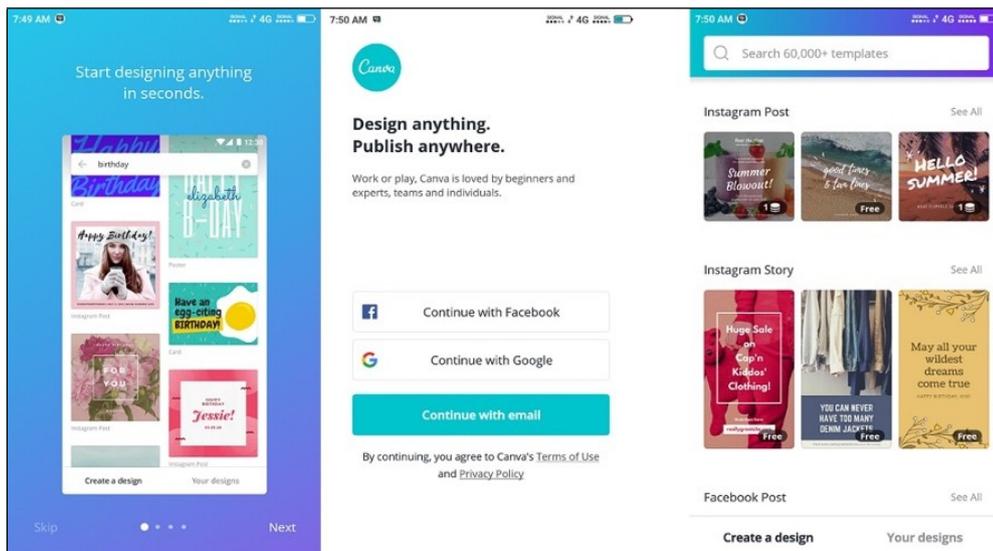**Figure 1.** Canva's general information.

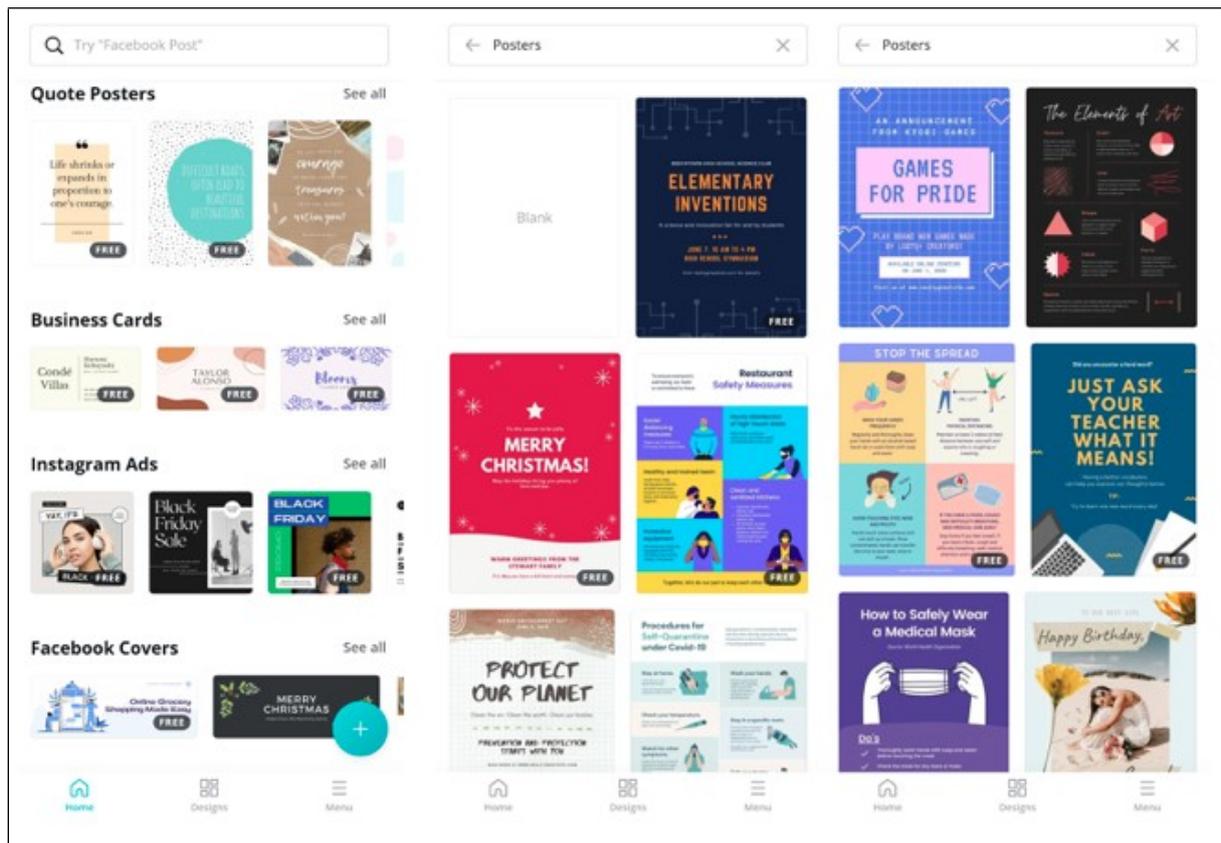**Figure 2.** Canva's home screen interface.

Figure 3. Canva template variations.

On this main page, Canva groups the templates into different categories. The display for each category is also not much different, there is only one blank template added if the user wants to design new material from scratch. A similar layout can also be found, for example, if you want to search with certain keywords. I tried the "posters", the result is as shown in Figure 3. It looks simpler and the user can focus more on the design which is the main function.

Still about the interface, on the main page there are only three pages options with buttons placed at the bottom, namely Home, Designs and Menu. On this Home page the user just has to choose one of the templates that appear. Meanwhile, the Designs menu contains a list of poster or banner designs that have been previously made by the user. That means, if it has never been made at all, the contents will be empty. The Menu button contains options for displaying user profiles. Graphically these buttons are created by displaying icon and text.

While at the top there is a search column whose function is to help users find specific templates as needed. As previously exemplified, use the keyword poster, birthday, or for example workshop, motivation, flyer, and so on.

4. Templates
The main feature and what make millions of people love it is the wide variety of templates available, although some of them are paid. However, the free option itself is more than enough to be used for various events or purposes. Simply put, Canva's free options are endless even if they are used for different event poster designs each day. So, that's more than enough. It just remains how the user's creativity in designing an attractive poster.
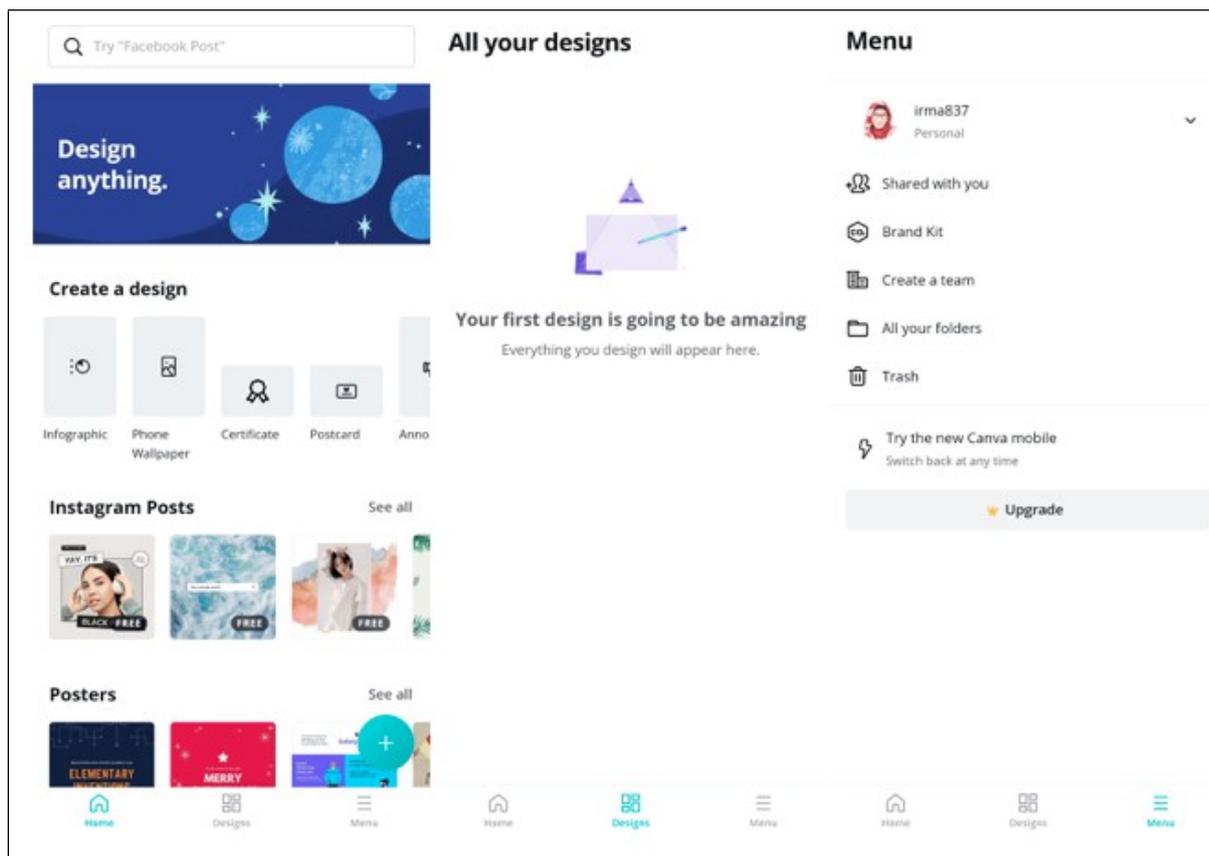
Figure 4. Display of three main menus.

5. Fonts

After the template is selected, then the user can change the text including the typeface. There are hundreds of fonts to choose from, depending on your taste. I am quite satisfied with the options they provide, especially the procedure for using it is straightforward.

6. Color

If the letters have been changed, the user can also change the color of the text. The color options also vary and it looks like Canva tends to suggest popular color options.

7. Background

The background is a part that cannot be missed. Canva provides many options to change the appearance of the background, including taking photos from the local memory gallery, images from Canva, solid colors and also sweeteners in the form of filters.

8. Formatting

Formatting is also supported in Canva, so users can choose to display text in italics, bold or capital. Then there are also options for alignment, it can be just left, center or right. Canva also provides the option to adjust the spacing between characters and lines.

9. Duplicates

This feature helps users accelerate the duplication of text settings, where the user will only have to replace the duplicated text content with new text.

10. Extra tools

These tools are available by default, making it easy to modify existing templates. Apart from that, Canva also provides extra tools which include all the features above. Usually this tool is used for designs that are designed from scratch. In this tool, Canva provides various inputs, for example adding text, images, videos, graphics and templates.

11. Share and download

Share feature to share the poster you just created, and at the same time Canva will also download the poster to local memory. As with many services, users can share posters with various third party services.

From the user interface side, the concept of Canva is very interesting, where the developer seems to want the user to focus on the design which is their strength. One of the important factors in a poster is the graphic design [10]. The layout used also prevents users from unnecessary steps. As for its main functions, Canva is almost flawless, easy to use especially for beginners, fast and light. The poster results are also very good. If you have to give a value, I give it 9 out of 10. However, for users who are familiar with the world of complex graphic design, they may need a more powerful tool.

One thing to complain about is the relatively small canvas size. Meanwhile, there is an empty space between the menu bar and the plus (+) icon that you can press to make more room for the canvas.
The sparks of this poster maker application include:

- small file size, not wasteful of data and memory;
- excellent performance on entry level smartphones;
- the interface is very simple, so it is friendly to all people;
- super wide selection of templates;

The slacks of this poster maker application include:

- relatively small canvas size. But it will be affected by the screen size of the device used;
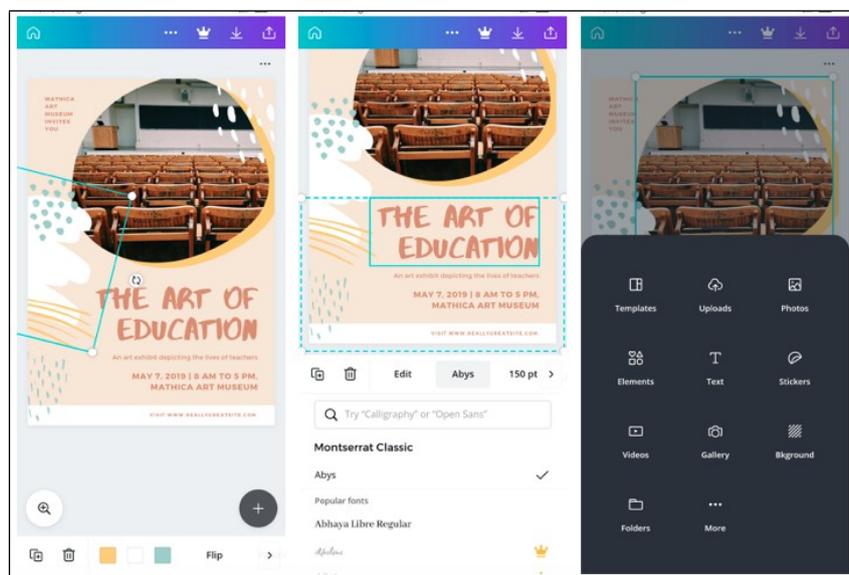- the share and download functions are one thing, so users can't just choose one of them;

Figure 5. Canva's user interface.

12. Conclusion

Canva provides an easy template for making posters so that users just need to put the pictures and text. In addition, the designs available are also very attractive and contemporary. This should be a quick and easy way to create visuals and help those not skilled in the magic of graphic design. Although it is very easy to use, I found that for the type of output that is required in the mold, it looks too simple. On the other hand, it's great for creating instant visuals, as long as you don't mind sharing the template with maybe thousands of other people. It's hard to deny that Canva is the best design app that's been

used so far. Not only is there a huge collection of templates, but also a very easy canvas editor, even for beginners.

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