Analysis on User Interfaces Readability: A Case Study of Instagram

A D Subarna¹, A S Arianti²*
¹,²Departemen Magister Desain, Universitas Komputer Indonesia, Indonesia

Email: *andinisa3112@gmail.com

Abstract. The aims of this paper to determine how readability of Instagram’s user interface (UI) affect users engagement. The interface of several Instagram features are analyzed through design theories such as user interface principles and the use of white space, followed by a survey among Instagram users to investigate the readability. Findings on this study suggest Instagram interface is following some design principles, while the survey indicate the user finds Instagram is readable and easy to understand. This study conclude Instagram user interface can be perceived well by its users.

1. Introduction

Instagram, as one of the leading social media in the world, has gained massive popularity as online photo-album that can be accessed and use it as promotion channel [1]. Like every other social media, Instagram allows users to interact with the system, with a user interface to improve communication between users and the system [2]. User Interface (UI) is the representation of the software or business to the user, system dynamic UI can help user to filter out some options that are not relevant, which helps reduce time delay and incorrect operations [3]. As an image sharing platform relying on its user to regulate the site, Instagram must have an interface which not only easy to understand, so that Instagram can help user to enjoy communication [4,5]. User Interface should have little space to work on and many information to deliver to user, because an interface designer must create psychological bridge between man and computer [6]. The key word of user interface is understanding. An interface that cannot be understood by its user is rendered unusable.

User Interface design must more versatile, dynamic and rich user to make Visual-based social media can demonstrate that positive high and negative low arousal images drive customer engagement, with that visual emotional and informative appeals encoded in brand-generated content influence customer engagement in terms of likes and comments [7,8]. Some social media has similar interface, because they are re-using the pattern already tested by successful social media to support that application which user can interact with daily emotions, and specially social networks tools has been tested to verify their usability, flexibility of use, and other specifications related to the type of analysis performed [9,10].

While there are quite a number of research on user interface, there is rarely research discussing how the users perceived its readability, moreover on a specific platform such as Instagram. Therefore, this study explored on how readability on Instagram user interface affects its user engagement. The researcher examined the visual representation of four Instagram features and associate them with user interface theory. A follow-up survey will also be conducted to investigate user’s perception on Instagram user interface. The researcher aimed to investigate the link between Instagram user and their understanding of its user interface, providing further insight on an effective user interface design for mobile application.
2. Method
This study analyzed the user interface of four features of Instagram: Profile, feeds, private message, and story. Each interface was screen-captured from the researcher’s private account on December 25th, 2018. The version of Instagram screen-captured was Instagram 74.0.0.21.99 for Androids (See Table 1). It is done to investigate whether the quality of good user interface is present in Instagram’s user interface or not.

| UI Variable | Indicator |
|-------------|-----------|
| Enable frequent user to use shortcuts | Having shortcut to do specific task or to go to specific page |
| Consistent | Available multi-platform |
| Reversal of action | Having universal action button |
| Design for multiple and dynamic context | Adaptable interface for different situation (customizable font size and type, ‘night mode’) |
| Design for “Top-Down” Interaction | Offer separate pages or hierarchical mechanism |
| Allow for personalization | Allow customization on user’s own profile |
| Design for Enjoyment | ‘Aesthetically’ pleasing, clear, applying the use of white space, applying visual elements |
| Using pre-design interface | Familiar with user |

The researchers conducted a survey for Instagram users, specifically in Indonesia. 500 participants in a range of under 18 years old to 35 years old were told to fill several questions linked to Google form. The question (see Table 2) is related to their experiences regarding Instagram user interface and how much they understand the interface.

| Question | Explanation |
|----------|-------------|
| Does the content displayed in grid bother your eyes? | To examine whether people have preferences in how they are seeing content and |
| Does the Ads bothers you? | To examine whether the placement of ads in their feed does bother users or not |
| Does the icon on Instagram easy to understand? | To examine the readability and understanding of the icons used in Instagram |

3. Results and Discussion
On profile page, a profile picture is located on top of the page in a shape of circle. Along with ‘bio’, number of post, and number of following/followers, and past “stories”, the top part of profile page serves as introduction or ‘identification’ of the profile’s owner. User can easily tell who the profile owner is just by looking at those information (See Figure 1).
Figure 1. Interface of Instagram profile account.
Source by: Chris Pratt’s Instagram account

The profile picture and bio can be customized as the owner please. The post and following/follower number does not have specific border to show that it is clickable, but clicking allows users to look at the list of following/follower. Under those numbers, there is “Follow” function. “Follow” function uses text “follow” inside blue square to make it stand out among the space, as it is the only colored button (see Figure 2). The contrast entices people to look and use the button, marking it as one of the important feature on Instagram profile page.

Figure 2. Follow button. Screenshot taken
Source by: Chris Pratt’s Instagram account

According to the survey (see Figure 3), 83.4% says grids does not bother them but the rest says otherwise. This indicates that users sees differently and it is necessary to built adaptable interface. Instagram has two ways to see the contents on profile page; in grids or vertical scrolling by clicking two leftmost icons under bio.

Figure 3. Survey on Content Displayed from Figure 1

Feed, or home (indicated by its icon, a shape of a house) is one of the main core of Instagram. Feed displays posts from another users; specifically from those followed by the user, vertically. In figure. 4, the post consists of picture with caption underneath. A “heart” button, “comment” button, “direct
message” button, and “bookmark” button are under the picture, allowing user for faster response toward the post.

![Figure 4. Instagram Feeds](image)

Among posts, user might see Advertisement. By algorithms, these ads are based on the interaction of the user or the content they followed. The Advetisment is made similar to regular post, with only difference is the blue border below the video. According to survey (See Figure. 5), 57.8% does not find the ads bothersome while the 42.2% finds it bothersome. Most who choose not bothered says the ads looks similar to regular post and it does not bother their scrolling at all.

![Figure 5. Survey on Ads on Instagram Feed](image)

Private message is another core feature of Instagram. It allows users to chat with one or more users in more private manner. The interface is similar to most private messaging in other social media; chats is separated between the sender and the receiver in a bubble speech-like box. The sender and receiver is indicated by the color of bubble speech and profile picture (Figure 6).
Figure 6. Interface of Instagram profile private messaging

Like most private messaging, Instagram also provide attachment feature that allows user to send files, and it is accessible in a form of icons. Mic icon indicates attachment for recording/sound files, square icon with mountain and dots is to send pictures, plus icon is for attachment for other files. Camera in blue circle on the left used to send picture or short videos which disappear after certain times. On top left part of the chat, the camcorder icon is for video chat (Figure 7).

Figure 7. Interface of Instagram story customization

Instagram story is one of the newest feature on Instagram. “Story” is a feature in which the user post images or short video along with editable caption in the post (presented in slideshow if there is more than one content). The content is available for 24 hours and can be extended using the highlight feature. Once criticized for having similar function with Snapchats, “story” become one of the popular feature of Instagram. Being highly customizable is the key point of Instagram story. User is allowed to directly use the camera to capture fresh image or video, or using pre-existing one, then post it. The customization is located on top of the page, offering from several text style, filters, sticker, freehand drawing and emoticons. Download icon is also available. On the bottom part, there are three options to who the story will be send. It can be send as story on user’s feed, send as story to specific group of person (grouped as ‘close friend’), or as private message. After the user post the story, A highlight feature will be available. A pop-up will also appear, explaining the feature’s function (refer to figure 6). Highlight is a new terms used in Instagram, and the interface does the job by explaining the function through pop out.
Instagram does its jobs with several good user interface theory mentioned before. There are several findings, such as:

- The interface notably has white background and black fonts, which differentiates them from user’s contents. It takes advantage of white space, making clear contrast between background and other elements such as thumbnail, icons and text.
- Instagram uses universal icons, which most users understood and memorize well. For some feature which doesn’t have the universal icons yet (such as, follow/unfollow, highlight etc) it uses clickable texts. In the bottom part of the page, users is presented with five icons (home, explore, upload, list of likes, and profile respectively), providing shortcuts for the users to do specific task (See Figure 8). Instagram is also adaptable and allows users to choose the way they see the content as thumbnail on grids or as separate post.

![Figure 8. Icons of the bottom part of Instagram.](image)

According to the survey (See Figure 9), 93.6% participants answered “yes” in the featured question, and the other 2.4% answered “no”. This answer proves that Instagram’s icons are easy to understand.

- Instagram is available in mobile and desktop, thus explains its consistency.
- Being highly costumizable in term of contents. Instagram provide dozen of tools to “touch up” users’ post, adding uniqueness in their content.
- Having universal back button on top left of the screen, making it easy to go back and forth the pages.
- Taking advantage of pre-existing design pattern (especially in private message), making the interface familiar to the user.

![Figure 9. Survey on Instagram icons](image)

4. Conclusion
The study finds Instagram does corporate some of the good user interface’s quality according to Padilla and Shneiderman (modified by Gong and Tarasewich). Instagram is quite efficient and is easy to the eyes. Through survey, it is also clear that the user agrees if Instagram User interface is readable and most user (in Indonesia) can understand it well.
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