

Analysis of the Effect of Microinteraction in Instagram Application on the Users

Lia Herna^{1,*}

¹ Universitas Multimedia Nusantara

*Corresponding author. Email: lia.herna@lecturer.umn.ac.id

ABSTRACT

Before we know it, digital media has grown and changed rapidly. One of the most common media is social media. According to datareportal.com in Digital 2020: Indonesia, 160 million people in Indonesia use social media and spend 3 hours 26 minutes every day on social media applications, and 63 millions of them are Instagram users [1]. An application/web/game always has micro-interaction, including Instagram. Micro interaction is detailed interaction to make users know everything they are currently doing or has done by making feedback in small animation to have more attachment to the application. In the present paper, the author analyses the micro-interaction in Instagram application based on literature and the micro-interaction effect in helping users use Instagram application using the qualitative method of In-Depth Interview with 6 users. The interview result produced a conclusion on the effect of micro-interaction in Instagram application on the users.

Keywords: *Microinteraction, Interaction Design, Social Media, Instagram.*

1. INTRODUCTION

Who doesn't know about Instagram? Today, Instagram is one of the popular social media in Indonesia. According to Digital 2020 Indonesia data, Instagram is the fourth most used social media in Indonesia. Instagram is used by 63 million people, consisting of 50.8 % women and 49.2% men [1]. Since it was established in October 2010, Instagram becomes an online media to share photos, videos and social networking, which has many features to manipulate photos and videos to be uploaded in a mobile application [2].

When using an application, a user would want ease of use. Don't Make Me Think (Krug, Steve., 2013, 3rd edition) states "when I look at a web page it should be self-evident, obvious, self-explanatory. I should be able to "get it", what it is and how to use it, without expending any effort thinking about it." [3]. It shows that a good application is an informative, simple, attractive and easy to use application. In this case, interactivity in a media is the spearhead. Interactivity is the most important thing to make a media "lively" and attractive. One of the interactivities in media is micro interaction.

According to Dan Saffer, "micro interaction is interactive detail, which can make product more fun, interesting and more deeply and smartly bond with user.

Although micro interaction is small, and sometimes invisible, micro interaction plays a very important role." [4]. Similarly, in Instagram, micro interaction is an inseparable part. Without good micro interaction, Instagram will be difficult to use. Here, the author will discuss the micro interaction in Instagram mobile application based on literatures and analyze the effect of micro interaction in helping users use Instagram application.

The micro interaction to be discussed are micro interactions in Instagram application for android mobile phone, using the latest 2020 version. The present paper is dedicated for UI/UX designer so that they would utilize micro interaction more in making an application/website.

2. LITERATURE REVIEW

2.1. Interaction Design

In Interaction Design – Beyond Human Computer Interaction (Sharp, Helen., Yvonne, Rogers., dan Preece, Jennifer., 5th Edition, 2019), interaction design is related with designing interactive product to support communication and interaction in everyday life and work. Idea on user experience is the core of Interaction Design [5].

To make a good interaction design, according Smith, Gillian Crampton in *What is Interaction Design*, Interview [6], it's required to have:

- 1) Clear Mental Model, something designed virtually which is a translation of the original
- 2) Reassuring Feedback, responding to something that has been done.
- 3) Navigability, user knowing where they are and how to access the next page/stage and return to the previous page/stage.
- 4) Consistency, consistency in interaction so that user knows how to interact based on previous experiences.
- 5) Intuitive Interaction, good interaction design generally makes user interact intuitively/can interact intuitively.
- 6) How it behaves, not only the form, how we interact must be consistent with the intended context [6].

2.2. Microinteraction

According to Dan Saffer "micro interaction is interactive detail, which can make product more fun, attractive and more deeply and smartly bond with user. Although micro interaction is small, and sometimes invisible, micro interaction plays a very important role." [4]. In today's very competitive market, micro interaction is very important. When user is given an experience in using a product and quickly adapt to the product, brand loyalty occurs. Most of the experiences are due to micro interaction in the product.

Micro interaction has 4 parts:

- 1) **Trigger**, something which starts micro interaction. It usually happens as wanted or required by user. Trigger could be a button or icon which can hover or be clicked by user.
- 2) **Rules**, which determines of micro interaction works. Rules must match the user's logics.
- 3) **Feedback**, which explains rules. Feedback describes effect/reaction after user performs cause/action. It's usually micro-animation.
- 4) **Loops and modes**, meta rule which affects micro interaction – a way to design and dissect micro interaction



Figure 1 Four part of microinteraction.

3. RESEARCH METHOD

In the preliminary stage of the study, the author performed literature study based on books and journals. Afterward, the author used the qualitative method of *In Depth Interview*. According to datareportal.com in *Digital 2020: Indonesia*, most social media users in Indonesia are 18 to 34 years old (65.7%), 30% of whom are female and 36.7% are male [1].














Based on the data, the author took an interview sample of 6 users, consisting of 3 women and 3 men aged 18 to 34 years old, who resided in Jakarta. Two of them are students in private universities, two are employees, 1 an entrepreneur, and 1 a housewife, all of whom are from upper middle-class families. The six users used Instagram application mostly for fun, to socialize with friends and family, and to fill spare time. They spent around half an hour to 2 hours a day almost every day. They were also active on social media and had great curiosity for information.



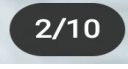


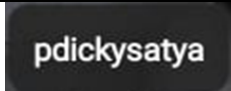


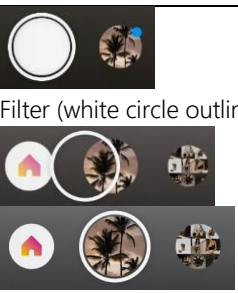
The *in depth interview* was performed via zoom for 1 to 1 1/2 hour per person by asking some questions on their history of using any other mobile application and the Instagram habit. The questions in the interview include questions on meCUE questionnaire [7]. MeCUE questionnaire is an instrument to evaluate user's experience in an application [8]. MeCUE questionnaire has 10 instruments, e.g. usefulness, usability, visual aesthetic, status, commitment, positive emotions, negative emotion, product loyalty, intention to use and overall evaluation [9]. Instagram application was used by the six users in android mobile phones. The interview result produced conclusion on the effect of microinteraction in Instagram application on the users.

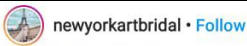
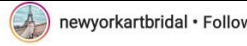


4. RESULT

Based on literature study and interview, the author first analyzed the features and interactions in Instagram application which were most often used and favored by the sources. The author described the microinteraction in each feature and analyzed it based on parts of microinteraction:

Table 1. Microinteraction in Instagram

No.	Trigger	Rules	Feedback
1.	 Home button	Click	 <ul style="list-style-type: none"> • Color change in icon • Move to homepage
2.	 Search button	<ul style="list-style-type: none"> • Type searched word. • Show top search, account, tags, or places options (swipe interaction) 	 <ul style="list-style-type: none"> • Color change in icon • Move to searched page
3.	 Upload button	<ul style="list-style-type: none"> • Select one/several photos to upload, • Edit photo, • Write caption, • Share Head 4 	<ul style="list-style-type: none"> • Photo uploaded to feed. • Notification for other users who follow the user's account.
4.	 Activity button	Click	 <ul style="list-style-type: none"> • Color change in icon, • Move to activity page to see notification.
5.	 Profile button	Click	<ul style="list-style-type: none"> • The red dot disappear • Move to user profile page.
6.	 Like icon in feed	Click 1 time on icon/ Click 2 times on feed	 <ul style="list-style-type: none"> • Its show red heart animation in Like icon • White heart icon in feed. • Notification appears in activity icon of liked user. • Notification appears under liked feed.
7.	 Comment Icon	<ul style="list-style-type: none"> • Click comment, • Click upload 	<ul style="list-style-type: none"> • Comment appears in user's feed • Notification on activity icon.
8.	 Message icon in feed	<ul style="list-style-type: none"> • Type message, • Select user name to be tagged • Send 	<ul style="list-style-type: none"> • Message appears in user's direct message • Notification on direct message icon.
9.	 Direct message button (swipe interaction)	<ul style="list-style-type: none"> • Select recipient name, • Type message, • Send 	<ul style="list-style-type: none"> • Message appears in user's direct message and • Notification on direct message icon.Alt+W

No.	Trigger	Rules	Feedback
10.	 Save Icon	Click	 <ul style="list-style-type: none"> • Show animation on icon and change color, • Popup window appears to inform it has been saved, • Shows animation in bottom right showing photo in feed enters profile. • Photo appears in save menu.
11.	  Indicator in feed, informing that there are multiple pages in feed	Swipe Interaction	<ul style="list-style-type: none"> • Move to the next page in the feed
12.	 Indicator in feed, informing tag	Click on photo	 <ul style="list-style-type: none"> • Tagged person's name shows in the feed photo
13.	 Photo/video story as icon button (swiping interaction)	<ul style="list-style-type: none"> • Take photo/ video/ writing • Edit by filter, • Give caption • Upload 	<ul style="list-style-type: none"> • Photo/video story appears and can be viewed in user's story. • Notification for other users.
14.	 Different indicators in story for user story, live ig story, and other users' stories	Click/ swipe interaction	<ul style="list-style-type: none"> • Enter the desired story • Swiping interaction to the next story.
15.	 Filter (white circle outline) (swipe interaction)	Show user's face	<ul style="list-style-type: none"> • Filter Animation/color adjustment appear.
16.	Hamburger button in profile page (swipe interaction)	Click/swipe interaction	<ul style="list-style-type: none"> • Exit additional menu

No.	Trigger	Rules	Feedback
17.	 <p>newyorkartbridal • Follow</p> <p>Blue follow indicator indicates the account hasn't been followed by user.</p>	Click	 <p>newyorkartbridal • Following</p> <ul style="list-style-type: none"> Follow text changes to following and turns black. Notification for user whose account is followed, through activity menu.
18.	 <p>Follow button</p>	Click	 <p>Following</p> <ul style="list-style-type: none"> Follow text changes to following and turns black. Notification for user whose account is followed, through activity menu.

4.1. Interview Result

Based on the interview result on the *usefulness* of Instagram application, the application was very useful. Beside socialization with friends and family through photo or story, the sources also could find out what happened to people they didn't know well. The application was also useful when the sources wanted to immortalize certain moments and shared them with their friends and families, as well as when they were bored with their routines. It showed that the features were consistent with the users' needs and behaviors, especially 18-34 years old people who were active in social media and were curious about information. In microinteraction, trigger and feedback informed the sources about what other users did, satisfying the sources.

In terms of *usability*, the sources considered Instagram application easy to use because they had and often used other applications such as Google Chrome, Facebook, Line, Whatsapp, Youtube, Gojek, Grab, E-commerce etc. in their mobile phones. It explained the triggers of the microinteractions in Instagram application, which are familiar icons similar with other applications such as Facebook, line, google and gojek. In Intuitive Interaction, good interaction design usually makes user performs interaction intuitively, while Clear Mental Model means something designed virtually is a simplified translation of something real/in real life, so that new user recognizes it easily and intuitively because they often see it in other applications/real life.

One of the advantages of Instagram for the sources was easy interactions in the form of sliding and one click to move from one page to another and one feature to another. In Table 1. Microinteraction in Instagram, nearly all triggers are followed by slide and one click

interactions. It helped the sources use the application with just one hand because they sometimes only used one hand for surfing and only used both hands for typing. The rules used by Instagram are based on *Consistency* in interaction, in which interactions in the homepage are the same as those in the following pages, so that users know how to interact based on their experience in the previous page.

The sources also said that doing anything in Instagram was very easy and didn't require thinking. For example, to like a photo, they only had to click the like icon and a red heart would appear on the photo. The sources would then know that they liked the photo and the same applied with the follow feature, etc. It's a series of microinteractions, starting from trigger in the form of icon in visible/eye catching place and simple shape consistent with clear mental model, followed by simple rules consistent with user logic. There aren't many stages for interaction and only require one click, then a feedback appears to inform what the user has done in the form of simple animation, color change of button, etc. as shown in Table 1. Microinteraction guides users to see what they do, what they have done, what they should do, where they are, and what other users have done.

The sources describe the visual of Instagram application as an "iconic" application for youth with colorful, fun, cheerful, exciting logo, while inside the application, it's simple, stylish, as seen in the icons and buttons (*Visual Aesthetic*). Therefore, the sources thought that not having Instagram application or not having Instagram account was "not hip" and "not cool" (*Status*). The sources also said that they were never bored on using the application (*Commitment*) because there was new information and even feature every day that encouraged them to be more creative, e.g. making good photos and videos, using filters to make them more "up to date" (*positive emotion*), although sometimes they

became addicted and forgot the time (*negative emotion, product loyalty & intention to use*). In overall evaluation, the sources saw Instagram application as not only a social media, but also their “needs” and inseparable part of their lives. It showed that the microinteraction in Instagram were consistent with the users’ needs, style and behaviors, starting from trigger button visualization, easy interaction so that the users didn’t have to think much to perform interaction, to simple, nice, up to date feedback visualizations, e.g. photo and video filter.

5. CONCLUSION

Based on the instruments, the microinteractions significantly affect each instrument, especially usability. Here, the microinteractions provide ease in getting information. Microinteraction series, starting from trigger, rules and feedback make users quickly know what they’re doing, what they have done, what they should do, where they are, and see what other users have done.

With good microinteraction, Instagram application users have great commitment, positive emotion, product loyalty and intention to use to use the application repeatedly or in other words the users have strong attachment to Instagram application.

With this paper, the author expects UX designers to pay more attention to microinteraction design in making application/website because good microinteraction in UX will affect user’s commitment, positive emotion, product loyalty and intention to use.

ACKNOWLEDGMENTS

I would like to thank all my colleague at UMN, especially Ms. Cenny and Ms. Ayu for all their kindness and help. And finally, I am indebted to my little family, my husband and two little daughter for their continuous support and love.

REFERENCES

- [1] Kemp. Simon, Digital 2020: Indonesia. (February 18, 2020). <https://datareportal.com/reports/digital-2020-indonesia>.
- [2] Kaperonis. Stavros, Virtual networks: Why do students use Instagram?, in: Homo Virtualis 2(1): 43-49, 2019, ISSN 2585-3899 \int doi.org/10.12681/homvir.20193
- [3] Krug. Steve, Don’t Make Me Think, Revisited: A Common Sense Approach to Web Usability (3rd edition). New Riders. 2013.
- [4] Saffer. Dan, Micro interaction: Designing with Details (1st edition), O’Reilly Media, Inc, 2013.
- [5] Sharp. Helen, Yvonne. Rogers, and Preece. Jennifer, Interaction Design – Beyond Human Computer Interaction (5th Edition), John Wiley & Sons, Inc, 2019.
- [6] Smith. Gillian Crampton, What is Interaction Design. Interview, Januari 30, 2002.
- [7] Mecue. (2018), “meCUE 2.0” <http://mecue.de/english/home.html>
- [8] Kindy. Wahyu Al, Rokhmawati. Retno Indah, Putra. Widhy Hayuhardhika Nugraha, Analisis Perbandingan Pengalaman Pengguna Aplikasi Snapchat dan Aplikasi Instagram menggunakan User Personadan Kuesioner Mecue, in Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer, ISSN: 2548-964XVol. 3, No. 9, September 2019
- [9] Minge, M., Thüring, M., Wagner, I. & Kuhr, C.V. (2016). The meCUE Questionnaire. A Modular Evaluation Tool for Measuring User Experience. In M. Soares, C. Falcão & T.Z. Ahrm (Eds.): Advances in Ergonomics Modeling, Usability & Special Populations. Proceedings of the 7th Applied Human Factors and Ergonomics Society Conference 2016. Switzerland: Springer International Press, pp. 115-128.