

User Interface Evaluation of Indonesian Online News Portals: Case Study of Vivanews and Detikcom

Muhammad Yazid, Rizky Arya Pratama, Slamet Riyadi

Department of Information Technology, Faculty of Engineering, Universitas Muhammadiyah Yogyakarta, Indonesia
muhammadyazid26@gmail.com, rizkyarya66@gmail.com, riyadi@umy.ac.id

Abstract — Following the advance of information technology, nowadays online news portal is very popular. By accessing news portal, people easily read news from their smartphone, smart tab and other mobile devices. In term of human-computer interaction aspect, news portal should serve an effective interaction between the website and readers. News portal should be designed based on standard interface design rules, which is commonly called Eight Golden Rules. The objective of this research is to evaluate the interface of two major Indonesian online news portals, VIVA NEWS and DETIKCOM. Both news portals were evaluated using heuristic method based on eight criteria; consistency, shortcut availability informative feedback, design dialog, error handling, easy reversal action, sense of user control and reduce short-term memory load. The result shows the evaluation of each news portal and the comparison between both news portal. The evaluation result is then useful to improve the usability and functionality of the portals.

Keywords: user interface design, eight golden rules, online news portal, usability and functionality

I. INTRODUCTION

Penetration of internet users in Indonesia is increasing significantly. Indonesian Association for Internet User (APJII) in collaboration with Indonesian Statistics Center (BPS) reported that in 2013, user penetration reached 28% of 248 million citizens of Indonesia [1]. This percentage includes users who access news from online portals. In line with the increment of users, the number of news portals also increases significantly. In the beginning of 2014, there are more than 30 news portals which are managed professionally. Others are news portals which are developed and managed by communities or personal.

In order to assure the usability and functionality of the portal, news portals should serve effective interactions between readers and portals. However, in fact there are many portals those do not take into account of this matter. Therefore, this article intends to evaluate the user interface of two major online news portals, namely Vivanews and Detikcom. The evaluation results can be used as references by developers to improve the usability of their portals developed.

II. METHODOLOGY

This research was conducted by evaluating the interface of news portals using heuristic evaluation method, which is known as Eight Golden Rules of User Interface Design [2]. The rules are as follows:

A. *Strive for consistency*

Interface should be designed consistently in the following aspects: fonts, color, capitalization, layouts and terminology. Sequence of actions should also be made consistently to perform similar task.

B. *Enable frequent users to use shortcuts*

Frequent users will intensively interact with the system. To enable users in performing their tasks quickly, the system should provide abbreviations and function keys.

C. *Offer informative feedback*

The system should provide feedback as response for the user's actions. The feedback ensures interaction between users and interface is in two ways.

D. *Design dialog to yield closure*

When the system performs sequence of actions, it is important to give to users an informative feedback that the action was completed. This feedback satisfies users and makes certainty of task completion.

E. *Offer simple error handling*

The interface should not allow a user to make a serious error. For example, the interface should not allow alphabetic characters to be entered in numeric entry fields. However, if the user makes an error, the system should be able to detect the error and offer some mechanism for recovery.

F. *Easy reversal of actions*

The interface should allow reversal of an action. This feature helps relieve anxiety. The users know that if an error

occurs on performing an action, the action can be undone. This encourages exploration of unfamiliar options.

G. Sense of user control

Experienced users like to be in control of the system. Therefore, you should design the interface to make the users the initiators of actions rather than responders.

H. Reduce short-term memory load

You can reduce short term memory load by.

- Designing simple screens.
- Consolidating multiple page displays.
- Reducing window-motion frequency.
- Providing sufficient training time for codes, mnemonics, and sequences of actions.
- Providing online access to command syntaxes, codes, abbreviation, and other information.

III. RESULTS AND DISCUSSION

This section provides detail evaluation result for the Vivanews and Detikcom portals according to eight rules which were presented previously. In addition, a comparison between both portals is also discussed at the end of this section.

A. Consistency

The result for this rule is divided into three aspects which are as follows:

- 1.) Judging from the font, color, capitalization, and consistent placement of menu. This website has consistent fonts since each page uses the same font. However, color, capitalization, and placement of menu are not consistent as indicated in Figure 1 and 2. For example, when entering into the main portal of viva website, when the mouse is moved into the title of the top menus (news) sub-menu appears as shown below.



Figure 1. Interface submenu of the menu News.

But when choosing one of news category in the main portal, display of menu on the top of web page is different.



Figure 2. Interface menu on one of the news portal.

It means viva website is not so consistent. Because there are differences at menu options on the main portal and the news portal. Not just menu option being different but the font, color, capitalization, and placement of news items.

- 2.) From similarity of terminology that used on menu of the website interface. It is very affect to user because when a website has a different terminology in every page, it will be difficult for users to find the information that looked for. In addition, the admin will likely difficult to set up a website that previously developed by other developer. For viva website, the menu on the top of main portal displays several information categories (news, football, life, blogs, forums, buying and selling), then each of those categories, there are sub-categories of information will appear instantly when mouse moved into the category. But sub-categories only appear on the main portal, it does not appear in the portal of sub-categories information. It also includes inconsistent in similarity of terminology.



Figure 3. Categories menu in the main portal.



Figure 4. The category menu on the portal of the category News.

- 3.) The last aspect of website consistency is instruction in each page or portal. In viva news website, there are parts those are not consistent with the instructions. When want to access the other portals from menu on the top of the main portal website. In the main portal, when the mouse is moved into the title menu will appears sub-menu. But when in other portals (vivanews, vivabola, vivalife) just display the title only and instantly go to information from the selected categories. For Examples Figure 1 and Figure 2.

B. Shortcut Availability

When the user access a website, the user wants to faster their interaction with the system. Shortcut means here is in the form of a button. Shortcut Availability is helpful when the user wants it. For viva websites those facilities already exist. However, there is a shortage at *home shortcut* button on the vivanews portal looks very small. So it can make the user does not know it is a shortcut or not.



Figure 5. Button home button is very small.

C. Informative Feedback

When a website wants to improve the quality, it should be there is a reciprocal of the user that will improving the website quality. The viva website there is not a page suggestions and criticisms, this website only provides comments for a news post only. The thing that causes the developer does not know that developed website is can be easily understood by the user and many suggestions to improve the website quality.

D. Design dialog

When the user creates a website account, the website should be display a notification when account successfully created. It was practiced in member registration of the viva website.



Figure 6. Notification members have been successful registration.

E. Error Handling

An interface should not allow the user to make a fatal mistake. For example in members registration of viva website, when username already exists and cannot use the same username even though password is different. This will cause a fatal error on the website. Viva website has error handling for this case.

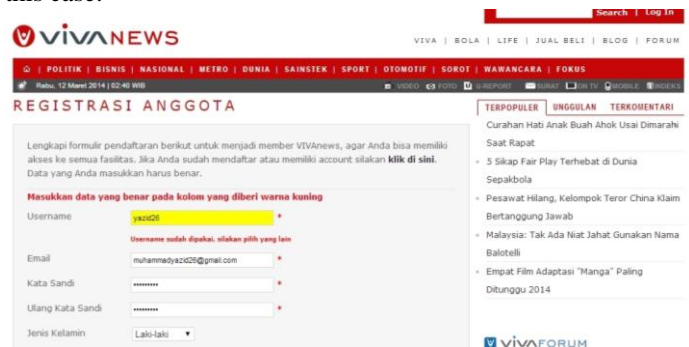


Figure 7. Notice that the username is already in use.

it will prevent the user from a mistake that can make an error in the website.

F. Easy reversal of actions

A website should allow reversal of an action easily. When a user want to read or comment, then the user wants to return to the instruction before they do not want them to come back easily. But it was not found in this website that is one of the weaknesses of this website. Although that action can be done through the browser, but if that action is in the website it will be different than through the browser.

G. Sense of user control

Users may feel that they are controlling the website. But it is opposite to this website. When the user opens a portal (vivanews) then a information appear but that will change automatically in a few minutes later. That weakness can make the user does not have a sense of control this website.

In addition, ease to operate the website also affect to sense of user control. Ease of use can be judged from the interface design on every page of the website. Because the interface design of website greatly affect the user whether the design is easy to understand or not, that can be judged from the placement of each menu. In the viva website portal, appear some live streaming videos that make the user feels little annoying because the video is not the headline of information. The video will be useless, because in the middle section of website display the news headlines for live streaming. If the video is a headline news, it should be visible when the website was accessed by user.

But the video is should be considered because the internet connection in Indonesia is generally slow. That will increase the load time and the memory can be burdened.



Figure 8. Choice live streaming news.

To view the latest news and the most popular news on right side of the website appear too much news list. It will be useless because any user look for the headline information not for the popular news.



Figure 9. Indexs on major portals.

Overall for the placement is good enough, but when the main portal show too much headline, it is not good for a news website that is already well known. In addition it will increase the load time, also will make an appearance too long for a

main portal. Because every news is seen by the user is the latest news. If there is the latest news on the child domain of viva website, the headline should not be displayed in the respective category of main portal, but it is displayed on the large space of main portal. For example, on bottom of the portal page viva.co.id website as shown below.

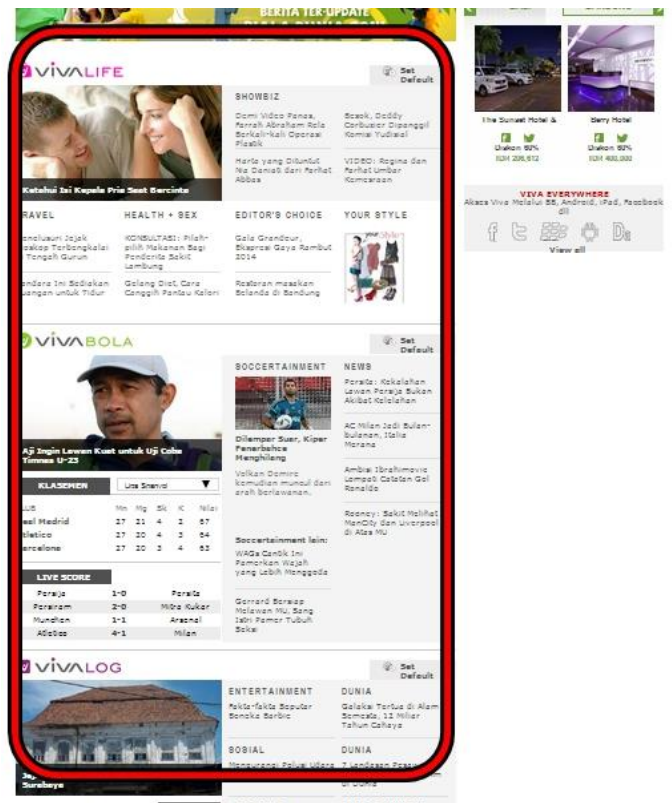


Figure 10. Pieces display the bottom of the website.

H. Reduce short-term memory load

Research shows that humans can hold no more than ten pieces of information in short term memory. To solve this problem website should be made simple and when in the main portal is only displayed the most recent news. Because if it's too much news from each portal displayed in the main portal, it will reduce the speed of user access.

For viva website, too many indexes that are not supposed to be headlines. The most recent news from the other portals will appear until there are more new news with a large size. So that it makes access to the website to be longer. With the video on the main portal, most likely when the user wants to get the news but it is difficult to access the website will reduce the intention of the user to get the news from viva.

Here are the results and discussion of web analytics www.detik.com based on Eight Golden Rules of User Interface Design.

A. Consistency

Consistency in website can be divided into three aspects as below.

- 1.) Judging from the font, color, capitalization, and consistent placement of the menu. The detikcom website has been consistent in font, capitalization, and placement of the menu, where each page have same font, capitalization, and placement of the menu. Inconsistent only in the category of news on the main page of the detikcom website. Difference only in color on each category as to differentiate and provide the right atmosphere in the depiction of each category. But the placement of the menu, a selection of news, and news categories are very good and consistent. Can be said for the level of consistency of this website is good. It will be easier for the user to use this website.
- 2.) From the similarity of the terminology used in the menu on the website interface. On the detikcom website a lot of resemblance or similarity of terminology, for example when you want to search for news, the search field located at the same place of each category of the website.
- 3.) From the instruction on every page, the detikcom website has instructions that are relatively same on every page. For example, the placement of news search field similar to other pages, on the column news category also has the same instruction that is one click it will show the desired news category. And the important thing in a news website, the instructions are not too much or too long.

Overall the interface of detikcom news website has been consistent if it is seen from the three categories above. It will be easier for the user to gain experience reading or watching the news, it will make the website visitors will increase because of the simplicity. Here is an example of detikcom website display that looks consistent. Examples are drawn from the main page of the category detikNews, detiki-net, detikSport, and detikHealth.

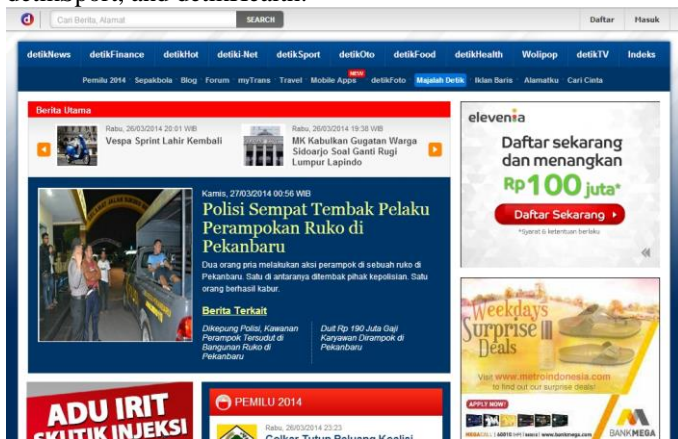


Figure 11. The main interface detikcom news website.



Figure 12. Interface detikNews news category.

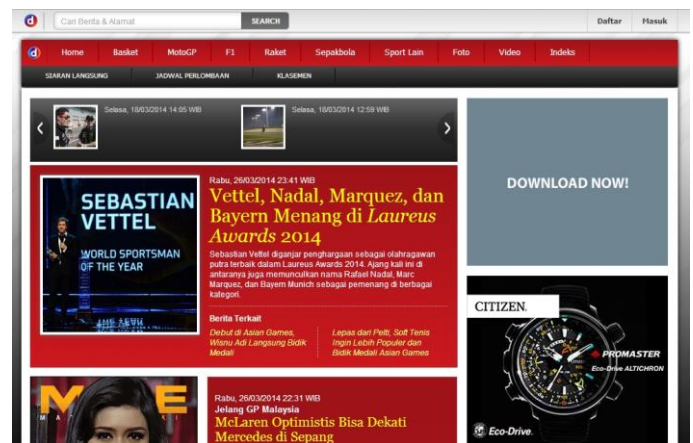


Figure 13. Interface detikSport news category.

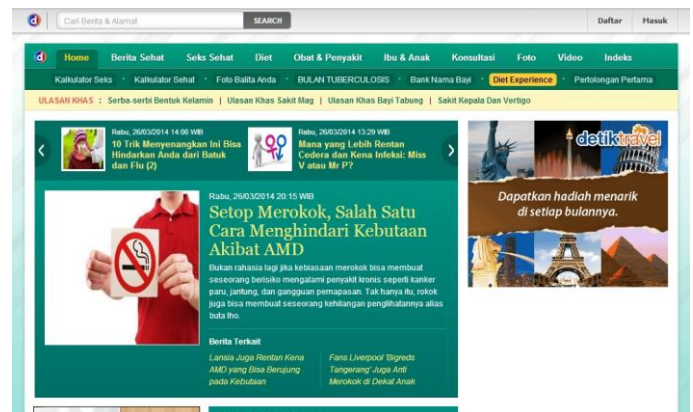


Figure 14. Interface detikHealth news category.

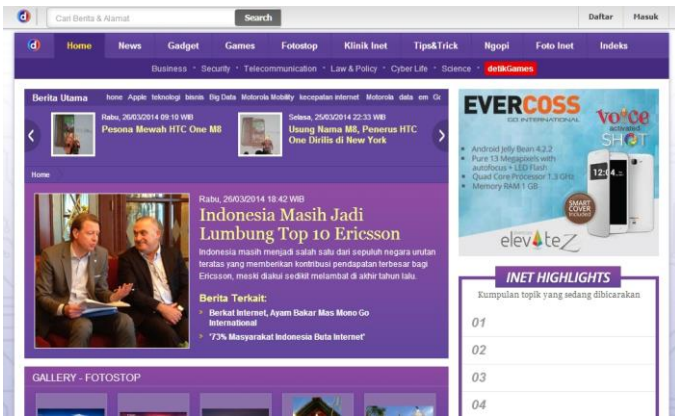


Figure 15. Interface detiki-Net news category.

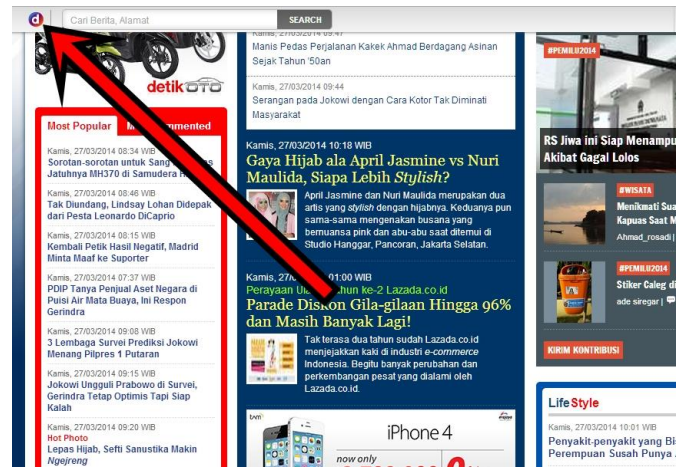


Figure 17. Shortcut on the detikcom website header.

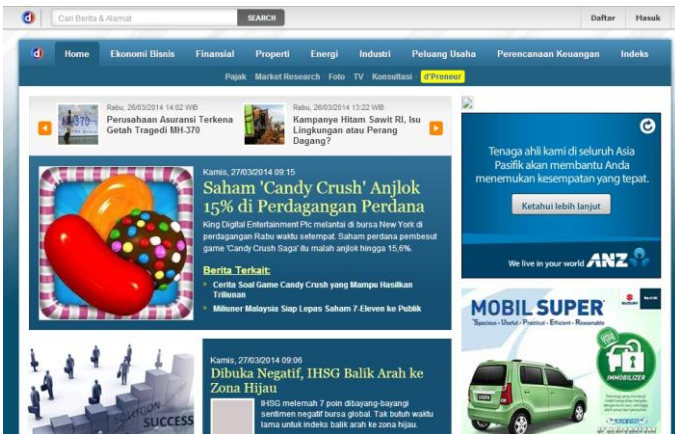


Figure 16. Interface detikFinance news category.

B. Shortcut Availability

For the detikcom website there are some shortcuts buttons with the logo. In the page header on the website there is a shortcut in the form of detikcom's logo. The Shortcut function to go to the main portal of detikcom. When scroll the page, the header is not moving. So, will shorten to return to the main portal using that shortcut. Although there are several other shortcuts that look small, but it is quite noticeable because the color and shape of a unique logo that makes it easy to look and know that the logo is a shortcut.

C. Informative Feedback

Detikcom website does not provide a specific page for feedback comments and suggestions of users and does not display information about the feedback from the users who responded by detikcom. If on a news website there is a special page for it, so to improve the usability and functionality will be easier. It is also called the method of observation.

D. Design dialog

Design dialogue can be a notification or instructions of usability. For example, when the process of creating an account on a website whether it succeeds or fails to make the account. In detikcom's website already contained it with a sentence that is easily understood by users. Here is a picture of a registration form on the detikcom account, which comes with a neat dialogue on the form and instructions of detikcom's accounts.

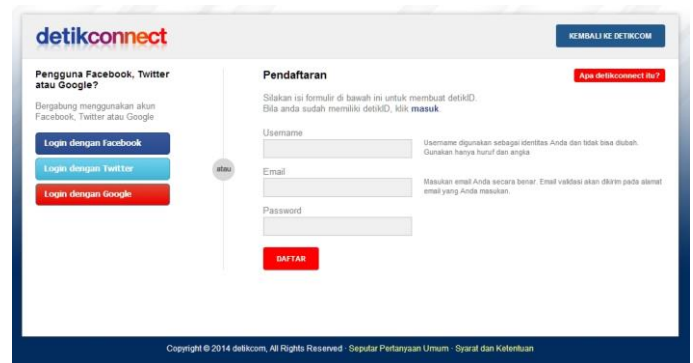


Figure 18. Account registration form detikcom.

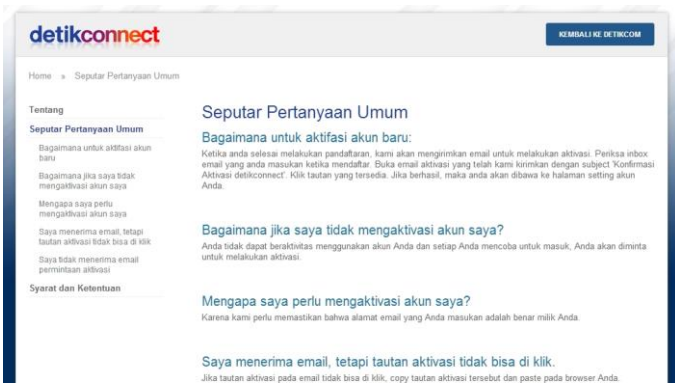


Figure 19. Instructions on detikcom account.



Figure 21. Ads are different but one block.

E. Error Handling

Similar to viva website, detikcom website also has good error handling. On the detikcom website, the testing of error handling on search. When searching for a keyword that does not exist on the website, detikcom gives notice that the search results are not found as shown below.

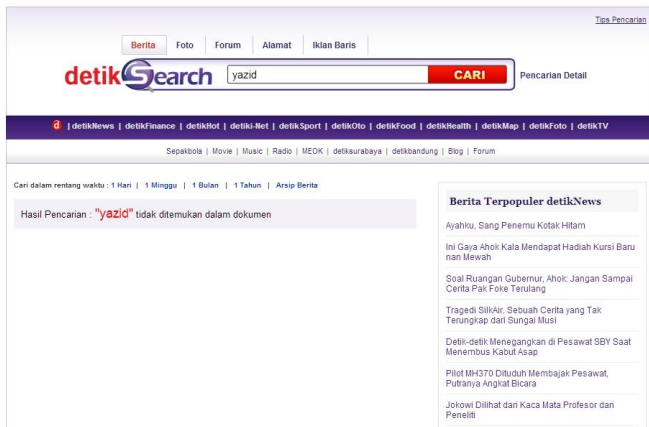


Figure 20. Searches were not found.

F. Easy reversal of actions

On the search page detikcom, was not found instructions to return to previous search results. Because when they want it, the user can do it through the browser interface, not through the website interface. It would be nice on the interface of the website also provides instructions for the return of order, this will improve the quality, usability, and functionality of the interface or the website system.

G. Sense of user control

Each interface of the news websites are required to make the user feel like a main controller of the website. Because the news websites are used by various users. For the detikcom website, feel uncomfortable in the placement of ads in a block and there are some ads that are dispersed. That's what makes the website interface does not look tidy enough. It will reduce the sense of control and comfort to the users who use the website.



Figure 22. Separate ads irregular.

H. Reduce short-term memory load

For the memory load on the website interface, it can be seen from the fast or the slow process of accessing the website. Access to the Detikcom news website is not so slow, because the interface on the main portal and the category does not load too large images or videos. But there are several things that can slow down the access to the main portal interface in Detikcom, one of them is the main portal interface display that is too long. Overall, the Detikcom websites has faster access than viva website for mobile modem network connection.

From the evaluation of these two websites are based on the Eight Golden Rules of User Interface Design, Detikcom website better than viva website. The generally results of the evaluation on both websites can be seen in the comparison table below.

No.	Golden Rules of UI Design	Website	
		VIVA	DETIK
1	Consistency	2	4
2	Shortcut Availability	4	5

3	Informative Feedback	1	1
4	Design dialog	5	5
5	Error Handling	5	5
6	Easy reversal of actions	1	1
7	Sense of user control	3	4
8	Reduce short-term memory load	2	4

No.	Keterangan
1	Very Bad
2	Bad
3	Normal
4	Good
5	Very Good

IV. CONCLUSION

From the analysis and comparison of the two websites which use heuristic methods based on Eight Golden Rules of User Interface Design, it can be concluded detikcom website is better than viva website. But not only viva website that needs to be fixed, detikcom website also needs to be developed in order to increase the usability and functionality of web. So it will be easier for all users to use and seek news from the web.

Proven through statistics of Top Sites in Indonesia from alexa.com that the detikcom news website is ranked 9 and viva is ranked 20 overall taken of all the websites that are in Indonesia. Whereas in 2013 from the same source for news in the website category Indoneisa, detikcom is ranked first followed viva at rank 2.

Through the above statistics, it is clear that many news websites in Indonesia are competing and deliver benefits. Also showing the development of technology in Indonesia is growing every year.

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