The online comic development of Indonesian Folklore as a literature learning media for millennials

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Abstract. Online comic of Indonesian Folklore is an oral-digital transformation which is less developed as a media of literature for millennials. Therefore, the main purpose of this study is to develop online comic with Indonesian folklore content for Millennials, it can also be used in education field. This study and development was carried out by using the ADDIE model (analysis, design, development, implementation and evaluation). The feasibility of online comic of Indonesian folklore was assessed by literary experts and digital art media experts. It was tested to 30 final year students. The result of the development is in the form of online comic of Indonesian folklore that contain of story about Ratu Shima. All stages of the development of online comic were carried out digitally, starting from the digital sketch process to its publication on the online comic platform. Online comic of Indonesian folklore prove to be feasible to be used based on software indicators, easy to use, visual communication, and story content. Online comic is highly recommended as a new media of literature for millennials.

1. Introduction
Nowadays we are living in a new era called the Industrial revolution 4.0. This era does not only become a topic in the world, but also it has an impact that continues to be discussed in Indonesia. The Industrial Revolution 4.0 gives an impact to the disruption of technology that spread to various fields of life, one of which is to the field of literature and art. As a result, the people of Indonesia and also the world community are now switching from real life to cyber life.

The rapid pace of technology has changed many aspects of life, including changes in media and information management from analog to digital [1]. One of changes is the use of digital platform that have been used in the production and publication process of art/ literature including film, multimedia, digital painting, animation, painting, graphic design, illustration, and comic. Actually there are no principles that significantly different from conventional way (analog), it is just the advantages of digital platform can produce the work more broadly [2].

Online comic is a new media in appreciating Indonesian folklore [3]. Oral literature is transformed visually in the form of digital comic or online comic. However, the phenomenon of online comic has not been much studied by literary researchers, particularly in the scope of online literature media development. The literature research is still focused on the study of texts and symbolic meanings.
Whereas, the transformation of folklore from oral to digital visual published online is an opportunity for folklore promotion that closer to millennial generation. Therefore, the online comic development of Indonesian folklore is needed, which can also be used as a media for literature learning for millennials. Therefore, the development of Indonesian folklore online comics is needed, which can also be used as a medium for literary learning for millennials. The online comic development that is developed is the integration of technology, literature, and visual arts.

The main objective of this study is to develop online comic with Indonesian folklore content as a reading material (as well as for literature appreciation media) for youth which usually called as Millennials. The online comic development as a new media for literature enables them to have a closer experience of literature because it is delivered through visual version, digital version, and accessed online. Reading folklore does not have to go through literature books with long texts, but it can be done by seeing them in a visual version (comic) with relatively shorter dialogue texts. As well as reading folklore does not have to go to the library room, but it can be done with the digital version by accessing online via the internet. It is very easy for Millennials who pay attention to the speed of access and breadth of coverage.

Why does it need to develop an online comic version as a new media for literature, especially Indonesian folklore? It is not just a matter of following technological advances, but also historically comics have become very popular reading material for youth [4]. We call it as an opportunity to "transform" literature media, from old media to new media and from old culture (real culture) to new culture (virtual culture).

The consumption of previous information that was based on oral and written information is now changing into digital literature and also online form. As well as literature consumed by the community, it is currently transformed due to being faced with major changes and information and technological advances [5]. It is along with the information and technological advances, folklore has been transformed in many forms. Changing the mode is the transformation of literature form from one type to another type [6]. One of external factors to change the mode of literature is "technology".

In the development of current oral culture has changed into a written culture, visual culture, until the digital version [7]. Online comic is a phenomenon of literature media changes due to the influence of technology and information [8]. Throughout the current technological developments, many comics utilize the internet in the form of content on social media or special websites that accommodate comic writers to publish their work.

In terms of form, online comic is part of digital art, which is a work created with digital technology or presented in a digital version. In this case, it is including images that are the result of editing with a computer or software usage, namely Adobe Illustrator, Corel Draw, Adobe Photoshop, and so on. Digital art is also included in making animations, renderings, video image manipulation, and projects that combine several technologies.

The online comic development as a new folklore media is believed to be a new media to change the habit of youth at home and at school through Indonesian folklore content. However, folklore as a cultural heritage must be preserved to the Millennials. In this context, technology and literature must be combined as a requirement for incorporating Indonesian folklore content to the Millennials generation. Technology (digital and internet) is the media, as well as the ecosystem.

2. Research methods
This study uses a research and development design, namely by finding information about the problem, potential, existing references, defining the problem clearly and the objectives to be achieved, the development project and its report [9]. This study aims to develop online comic as a new media to appreciate Indonesian folklore that can be utilized in the education field and youth generally, it is developed through systematic steps and tested for their feasibility both in terms of material and media. In this research and development, researchers use ADDIE procedures: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation [10].
To find out the feasibility of online comic being developed, online comic of Indonesian folklore was assessed by a literature expert and a digital art media expert. The online comic development of Indonesian folklore was implemented to the 30 final year students at the Department of Indonesian Language and Literature, Universitas Negeri Semarang as a representation of Millennials generation [11]. Through this implementation, the feasibility of online comic is also considered from the aspects of software engineering, visibility, ease of use, relevance of folklore material, and communication. The data of implementation were collected through controlled observation technique on the use of online comic media and analyzed by descriptive statistics. The implementation of online comic with Indonesian folklore content is managed by using a one shot case study design [12].

3. Results and discussion

3.1. Results

The online comic development involves several jobs including the preparation of story content, visualization, digitalization, and online publication so that it can be accessed by various groups. One of the effects of the comic development is all verbal and visual data are created in digital version, namely games (especially online games) and animation. The development is important to be done because online comic is part of cultural engineering technology. It is very important as an investment in the future. The following paragraph will discuss about the online comic development of Indonesian folklore.

3.1.1. The need of online comic as a new media of Indonesian Folklore. The expansion of literature media in the digital version is now increasingly needed to face the challenges of current development, especially in the Industrial era 4.0. Based on the digital application, comic can be categorized into four categories: (1) digital production, (2) digital form, (3) digital delivery, and (4) digital convergence [13]. Digital production refers to the process of creating and producing comic that can be done digitally. The production process is not only digital manipulation, but also makes a full digital image. Digital forms relate to digital comic type. Comic in the digital version has borderless capability, it is not affected by paper limitations. The digital version allows comic to be installed vertically down with a scrolling reading system or installed horizontally with a swipe reading system. This is the advantage of comic in the digital version. It is different with print comic that is limited to panels and paper pages. Digital comic is in the form of electronic data that can be saved in digits or bytes. Another advantage is that it can be transferred to various media storage files. Whereas, digital delivery in online comic allows digital comic distribution and digital comic displays that has high mobility and paperless. Digital convergence also allows comic to be linked to other media that are also digital based.

The existence of various online folklore platforms, especially comics, has made Indonesian folklore more freely diverted to provide a digital-based visual form [14]. A study shows that many folklore illustrators change over online way in publishing their literary works. It is not only being easier to be used because it does not need to go through the printing process, but also online comic has advantages, namely it is easier and faster to be accessed by readers [15].

Based on the analysis of needs from the aspect of content, the most needed of the online comic development in the context of literature appreciation learning is online comic that has content links with Indonesian folklore. The suitability of this content is needed so that online comic can still play a role as a source of learning for millennials. From the media aspect, the online comic is as a literature media change from oral to visual-digital that are published online so they have high visibility, interactivity, and accessibility.

Based on the results of the software and hardware requirements analysis, all requirements in the online comic development of Indonesian folklore are obtained. Software and hardware needed for the production process of folklore comics is the SAI Paint Tool with pen tablet tool for making folklore comic sketches. The use of Adobe Photoshop software and a set of laptop are needed for colouring. The use of Corel Draw software is used to create the layout and story text. Whereas, the online process
needs: (a) a hardware connected to the internet in the form of personal computer or laptop, (b) web browsers to access the internet namely Mozilla Firefox, Google Chrome, Internet Explorer, Safari, or Opera, and (c) online comic platforms to publish and read folklore comic.

3.1.2. Designing online comic of Indonesian Folklore. The most important thing in designing online comic of Indonesian folklore is to tighten the plot, which consists of making storylines and storyboards. Storyline contains a story script in the form of text. The text will be appeared in the form of a character dialogue in an online comic. As well as filmmaking, comic also requires scenarios in the form of text describing scene by scene. In making the storyline, the narration is adapted from oral and written information of Indonesian folklore. The more detailed and complete the comic scenario, the easier of the visualization stage to become a storyboard. Storyboarding is done in the same time with sketching. The Indonesian Folklore that becomes online comic content is Ratu Shima. Ratu Shima is a folklore that came from Java. Ratu Shima’s storyline includes (1) main character, (2) characters, (3) structure, (4) plot (5) conflict, and (6) plot type. It can be seen in the table 1 below.

Table 1. Designing online comic with storyline.

| Storyline       | Description                                                                 | Source      |
|-----------------|------------------------------------------------------------------------------|-------------|
| Main character  | Queen Shima, Naraya Putra Mahkota, and King Ta-Che.                         | Oral folklore|
| Character       | Wise and just, careless, generous.                                          | Oral folklore|
| Setting         | Kalingga Kingdom, Jave, Forest.                                             | Oral folklore|
| Plot            | Introducing a royal atmosphere a peaceful and prosperous community life Queen Shima’s inner conflict the people gossiping about problems that were faced by the kingdom children playing around the kingdom Naraya did a mistake Naraya punished by the Queen King Ta-che heard the punishment news and decided to come to Kalingga King T-Che asked the punishment of Naraya to end Naraya was freed up. | Oral folklore|
| Conflict        | The Queen was tested about her fairness when punished Naraya                 | Oral folklore|
| Plot type       | Chronological plot                                                          | "           |

3.1.3. The online comic development of Indonesian Folklore. The online comic development of Indonesian folklore was carried out by a research team involving illustrator practitioners. The first step is making story comic sketches. The Ratu Shima comic sketch was made by using the SAI Paint Tool with a tablet pen tool. By using the SAI Paint Tool, the sketch is directly saved in a digital image format. This format will simplify the colouring stage which is also done digitally. Making digital sketches used tablet because it is more practical. The use of the SAI Paint Tool graphic program in making digital sketches allows us to maximize creativity in visualizing story lines from text or oral. The SAI Paint Tool can be applied on Microsoft Windows. The following figure is a display of digital sketching (see Figure 1).

The second stage is colouring. The colouring is done by using Adobe Photoshop software. The sketch drawing that has been made by using the SAI Paint Tool then is saved in the JPEG Bitmap format. Adobe Photoshop imports the file from the SAI Paint Tool. Adobe Photoshop was chosen because it has advantages in processing Bitmap images, to give colouring, make gradations, and manipulate images. The colouring uses the background/foreground tool set, while the object manipulation and its colouring use various tools, including: (a) Brush Tool, (b) Pencil Tool, (c) Clone Stamp Tool, (d) Eraser Tool, (e) Magic Eraser Tool, (f) Paint Bucket Tool, (g) Gradient Tool, (h) Blur Tool, and (i) Magic Tool. To set the colour sharpness of comic engineering drawings uses flow and opacity. The results of the colouring can be seen in Figure 2.
The third stage is giving speech bubble for the placement of dialogue text and narrative text. The addition of dialogue text and narrative text is done in Corel Draw, because this software has the advantage in structuring the layout. The text added is dialogue text and narrative text. The source of the text comes from Ratu Shima’s folklore which has written version in several library sources. The
give of speech bubble and text in Corel Draw is done by using the Freehand Tool and Text Tool. See Figure 4.

The final stage is posting folklore comic to the website so they can be accessed online by readers. The online comic platform chosen is Foxtales.id. This platform has a unique characteristic of displaying comic vertically, or has the reading directions for each panel from top to bottom. The following figure is a display of online comic of Indonesian folklore in the Foxtales.id page.

Figure 4. The process of adding speech bubble and text by using Corel Draw software.

Figure 5. The display of Indonesian folklore comic in an online comic platform.

The result of the online comic development of Indonesian folklore was validated by media experts to get a review and assessment. The validation of online comic was carried out by digital media experts and the validation of folklore content is carried out by literary experts as well as arts lecturers at Universitas Negeri Semarang. The validation of media was carried out to analyze and assess whether the media developed are worth tested. The validation of media and literary content was done by filling out a questionnaire that uses a likert scale. Based on software engineering indicators, visual communication, and story content, the results of the online comic development of Indonesian folklore media is categorized into the decent category with an average score of 3.5 (good).

3.1.4. The implementation of Online Comic. After the validation was done by media experts and material experts, then the implementation was carried out to 30 students of the Department of Indonesian Language and Literature Education as a representation of millennials generation in the literature studies. This implementation is carried out to test the level of practicality of the media that has been developed so that it can support the feasibility of the media for practical purposes, namely a media of literature appreciation learning for millennials generation. In the implementation, the online comic is used as learning media. The use of online comic in literature appreciation is done by using Android phones owned by each student, but some of them accessed by using a laptop. The online comic can be seen directly by students or downloaded by using portable gadgets. Readers register and sign in to the site. After sign in, students can freely access online comics. Based on ease of use indicator, visual communication, and story content, the use of online comic of Indonesian folklore as a literature media is categorized in the feasible category with an average score of 3.23 (good).

3.1.5. Evaluation. The evaluation was done through the results of the assessment and responses from media experts, material experts, and responses from millennials generation users who learn literary
3.2. Discussion

3.2.1. Online comic as a new media for the future of Indonesian Folklore. Based on the results of development and implementation, online comic can be a new media of literature presentation in the future. The digital technology and internet advances decent to be integrated as part of literature media. Online comic has multimedia capability, which the display has interactivity and even allows it to be combined with limited animation. The multimedia character of online comic is able to give a better reading experience for readers [15]. Comic is read on electronic media that has been downloaded and read online. This is in accordance with the lives of millennials who are in cyber culture [16].

Through online comic of Indonesian folklore, the transformation of comic from verbal to visual can be presented digitally, both in single panel displays or multiple panels. The technological advances condition also makes online comic as a media of literature have a distinctive format. The online comic display format is different from the formal comic strip format that usually in three to six panel displays. Online comic has a format extending downward (vertical) so that readers can browse through comic scrolls or sideways through swipes.

3.2.2. The online comic potential as an appreciation learning media of Indonesian Folklore for millennials. Online comic is very potential for literature appreciation learning media because it offers many advantages, especially in the creation of an interesting learning environment. Due to an online learning system, millennials readers not only access knowledge from textbooks but they can also access prose subjects from internet sources [17]. The use of online comics as a learning media starts from determining comic content [14]. The determination of online comic is based on the following criteria: (1) the relevance to the folklore learning content, (2) the relevance to the learning objectives, and (3) ways of using it.

4. Conclusion

Online comic is a new media for literature, especially for millennials. Online comic changes folklore media from oral to visual-digital which is published online so that it has high visibility, interactivity, and accessibility. The software used to develop online comic of Indonesian folklore is the SAI Paint Tool, Adobe Photoshop, and Corel Draw. The hardware needed is a pen tablet, laptop/ computer, and smartphone. The steps of the online comic development of Indonesian folklore are done digitally, including digital graphics, digital colouring, giving speech bubble, and posting online comic on the Foxtales.id platform. Based on the software engineering indicators, namely the ease of use, visual communication, and story content, the use of online comic of Indonesian folklore as a literature media is proper to be used.

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References

[1] Ponsard C and Fries V 2009 Enhancing the accessibility for all of digital comic books International Journal of Human Computer Interaction I(5) 127-144
[2] Mataram S and Ardianto D T 2018 Digital Comic Platform Mapping In Improving The Creative Industry Potential 3rd International Conference on Creative Media, Design and Technology (REKA 2018) vol 207 (Paris, France: Atlantis Press) pp 135–137
[3] Zemmels D 2015 Youth and New Media On the Occasion of the Ong Centenary Year
Communic. Res. 31(4) 4–22
[4] Cedeira Serantes L 2014 Young adults reflect on the experience of reading comics in contemporary society: Overcoming the commonplace and recognizing complexity (PhD diss., London: University of Western Ontario)
[5] Neelamalar M and Chitra P 2009 New media and society: A Study on the impact of social networking sites on indian youth Estud. em Comun. 6 125–145
[6] Damono S D Alih Wahana (Jakarta: Editum)
[7] Sugiarito E and Lestari W 2020 The Collaboration of Visual Property and Semarangan Dance : A Case Study of Student Creativity in “Generation Z” Int. J. Innov. Creat. Chang. 10(12) 100–110
[8] Teeuw A 1998 Sastra dan Ilmu Sastra (Jakarta: Giri Mukti)
[9] Richey R C and Klein J D 2007 Design and Development Research (London: Lawrence Erlbaum Associates. Inc)
[10] Van den Akker J 1999 Principles and methods of development research. In Design approaches and tools in education and training (Dordrecht: Springer) pp 1-14
[11] Marshall C and Roosman G B 2006 Designing Qualitative Research (Thousand Oaks: Sage Publication)
[12] Sugiyono 2013 Metode Penelitian Pendidikan, Pendekatan Kuantitatif, Kualitatif, dan R&D (Bandung: Alfabeta)
[13] Ahmad H A 2019 "Kenapa Komik Digital; Indonesia ICT Award 2009," [Online] Retrieved from: https://www.academia.edu/1721061/Kenapa_Komik_Digital
[14] Fatimah A, Santiana, and Saputra Y 2019 Digital Comic : An Innovation Of Using Toondoo As Media ENGLISH Rev. J. English Educ. 7(2) 101–110
[15] Aggleton J 2018 Defining digital comics: a British Library perspective De fi ning digital comics: a British Library perspective J. Graph. Nov. Comics 00(00) 1–17
[16] Yannakogeorgos P A and Geis J I 2016 The Human Side of Cyber Conflict: Organizing, Training, and Equipping the Air Force Cyber Workforce (United States: Air Force Research Institute Maxwell AFB)
[17] Sugiarito E, Julia J, Pratiwinindya R A, Prameswari N S, Nugrahani R, Wibawanto W and Febriani M 2019 Virtual gallery as a media to simulate painting appreciation in art learning Journal of Physics: Conference Series 1402(7) 077049