Implementation of Cultural Festivals in Indonesia Using the Digital Kultur Application as a Form of Performing Arts in the Industrial Era 4.0

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Abstract. Indonesia is the largest archipelagic state where it’s main characteristic is the diversity in terms of cultures, customs, and traditions. Indonesia nowadays has become an open country and is able to compete in the rapid changes of globalization. In this overwhelming globalization, national identities are becoming more crucial in this regard. The fourth industrial revolution, known as the industrial era 4.0 which is currently taking place, has a major influence on every aspect of life. Internet of Things (IOT) are the main characteristics of this era. One aspect that is affected by the technological developments is art and culture, especially in the world of performing arts. Digital Kultur is an invention in the form of an application made for organizing various cultural festivals in Indonesia. It is designed to be one of the solutions to address technological challenges in the world of music and performing arts. By using this application, festival participants are managed online, starting from the registration process, auditions, judgment, up to the result before the final offline festival. The main point of using this application is the effectiveness and efficiency of the operational time of the festival. The music and cultural performances can be held throughout Indonesia, and people will have much greater opportunities to participate in various music and cultural festivals by using this application because it can be accessed and applied everywhere in all regions of Indonesia, from Sabang to Merauke, and from Mianggas to Rote Island.

Keywords: Digital Kultur, Performance, Festival, Culture, Indonesia

1. INTRODUCTION

Indonesia is one of the countries with the most diversity of ethnic groups. More than 1340 ethnic groups were recorded in the Indonesian government census in 2010. Each ethnicity has cultural differences. The diversity of culture is the main attraction for Indonesia. This culture can be an important asset in the field of education, arts, and tourism, attracting scholars, researchers, artists, and even tourists to visit Indonesia. Strategic effort made to introduce the cultural diversity of which is through performing arts in cultural festivals.

Cultural festivals are an effective way to introduce cultural products to the wider community. Some cultural festivals in Indonesia which are worldwide and are always attended by participants and people from abroad include the Dieng Culture Festival (DCF); Jember Fashion Carnaval (JFC); Lake Toba Festival; Yadya Kasada of Mount Bromo; Lake Sentani Festival; Cap Go Meh Singkawang; Pariaman Tabuik Festival; Yogyakarta Sekaten Festival; and many other cultural festivals organized by the respective local governments in Indonesia.

Art performances and cultural festivals are vehicles for developing and preserving cultural products. Furthermore, they can actually be a means to develop science and technology. In this case, those festivals and performing arts can stimulate the creation of an appropriate technology for organizing cultural festivals, that must keep abreast of time, continue to exist, and become the main target for the audience.

Some aspects affected by the technological development are art, and culture including the world of performing arts in the form of cultural festivals. The fourth industrial revolution, known as the industrial era 4.0, which is taking place today, has had a major impact on this development.
Information and communication technologies evolving in this digital era requires innovations. This can be seen from the growing number of physical and digital technologies combined with analytical artificial intelligence, cognitive technologies, and the Internet of Things (IOTs).

Advances in technology make performing arts and cultural activities become easier to be presented and utilized according to the needs. The ease of access indirectly can increase the level of public appreciation. These conditions have an impact on the production of performing arts in Indonesia, where it should be able to compete with the products coming from abroad. This is a challenge not only for the artists in producing a show, but also for Indonesia's creative industries in developing and maintaining the existence of art and culture of the nation. Developing art and culture is building the national identity. It is very fundamental to compete globally.

Transformation of performing arts as a cultural product is in line with technological developments. Digitizing content and using internet technology have greatly influenced the production of performances in the form of performing arts and cultural festivals. The digitalization process means a transformation of cultural performances, where all reconstructed using digital technology devices. That is, the production of the show will go through several stages of the process and different packaging.

The technology product developed in this research is called ‘Digital Kultur’, an application platform for organizing digital-based arts and culture festivals. Digital Kultur is an innovative software driven from the phenomenon of the richness of implementation of performing arts and cultural festivals in Indonesia. Digital Kultur is designed and created to provide convenience and comfort for participants, as well as the ability to streamline time and energy for better performance.

2. LITERATURE REVIEW

2.1 Music Performance & Festival

Music performance is a form of creativity of a person or group of musicians which is poured into the form of a direct display, witnessed and exhibited to everyone with the aim of being able to be enjoyed, appreciated, and useful to many people. "Perform" is then often understood from a perspective which means it includes: 1. to make, construct; produce, bring about, or come true; 2. 'present' to the audience.

When viewed from the perspective of modern performing arts, performance art can be interpreted as: "Art-valued activities involving performers who interpret a material to the audience (audiences); both through speech, music, movements, dances and even acrobatics. The most important element of performance art is the occurrence of direct interaction between the performer and the audience, even though supporting elements such as film or recording material are included".

2.2 Art Collaboration

Collaboration is a general term that is often used to describe a cooperative relationship conducted by a particular party. The notion of collaboration put forward by experts has diverse perspectives, but the point is that of togetherness, cooperation, sharing of tasks, equality, and responsibility. In other contexts, collaboration can also be referred to as "Cooperation" (cooperation), "co-working" (working together), "teamwork" (group work), "joint effort" ("joint effort"), "mutual assistance" (mutual assistance help), even interpreted as "mutual cooperation" (Brown, 2002: 9).

Collaboration in the field of art is usually interpreted as an attempt to combine or assimilate several different musical concepts, such as the merging of traditional art and modern art, such as incorporating elements of Indonesian traditional music into modern music (western), or vice versa. Art collaboration is basically the work of bringing together two or more parties: human / artist and / or art, culture, nation and country (Supanggah, 2002: 56). Each person in the collaborative process (from both parties) has the freedom to express his expression, so that sometimes the cooperation agreement is not determined by a specially designed format, but each party may determine its role "freely" according to size their beauty. The elements of improvisation, tolerance (from both sides), and the protruding of each musical character are things that color the collaborative work.

Herdini (2001: 62) explains, the impact of collaboration is the emergence of collaborative works that can be categorized as "compounds", "dialogues", and "attachments". Compounding
is a combination of two different characters, which are closely related as a whole interwoven composition. In a sense, if one character is lost, then the fabric of the composition structure is no longer meaningful. Dialogue is a fabric of composition filled by two characters who change roles. Whereas what is meant by patch is a fabric of composition structure built by one character, then filled with other characters, in the sense, if the other characters are omitted, it will not reduce the meaning of the structure of the previous composition

2.3. Digital Technology in Performing Art

The development and transformation of art performances as cultural products occur along with technological developments. Content digitalization and internet technology advances have had a significant influence on production in the music and performance industries. The use of digital technology in art performances is one of the solutions for artists to keep pace with the rapid development of the digital industry, and create a new format for packaging performances in accordance with technological developments in the digital age. This was done as an effort to re-increase public interest in watching art performances.

The main aspect in an art performance is the material displayed. Digitalization in the field of art in general can be interpreted as a process of transformation of works that are analogous to digital format. In the concept of performance, art is elaborated and collaborated into a concept package with a variety of display formats.

Artistic is the next important aspect in digitizing art performances. The technology developed at this time allows a variety of artistic visualizations that are able to support and make the show more interesting and spectacular. Digital technology in the arts that are often used in musical performances include:

1. Hologram; Hologram technology is one of the results of optical engineering. This technology is able to display a visualization of a soloist, singer, or musician in the form of a hologram even though the relevant person does not exist.
2. Video Mapping; is a technique that uses lighting and projection so as to create optical illusions on objects. Video Mapping is a new method and part of the evolution of visual art technology.
3. A combination of video, lightning, and CGI; the integration of visualization between video, lighting and CGI technology to produce visual effects that are more tangible and interesting.
4. Augmented Reality (AR); is a technology that combines two-dimensional and or three-dimensional virtual objects into a real three-dimensional environment, then projects these virtual objects in real time.

The four digital technologies above are the new choices for performing arts, especially in the artistic aspects. Utilization of digital technology can be a strategy in an effort to increase the interest of the public to watch art performances directly.

3. METHODS

The method used in this research is qualitative with a phenomenological approach to examine the development of art and cultural performances in Indonesia. Digital Culture as an application for organizing festivals, designed and made based on survey results and experience in the field. The use of the Digital Kultur application is carried out in the form of experimental performances according to needs. In this research the folklore choir festival was carried out as experimentation.

4. RESULT AND DISCUSSION

The results of this research are the responses of the users of the Digital Kultur application as a platform to organize a cultural festival. Using digital live performance technology with recording and live streaming systems, it makes it easy for participants to participate in a series of festival activities. This application has also obtained a Copyright from the Director General of Intellectual Property Rights of the Ministry of Law and Human Rights of the Republic of Indonesia with number 000117776.
a. Digital Kultur Application

Digital Kultur is an invention in the form of an application made for organizing various cultural festivals in Indonesia. Using digital live performance technology with recording and live streaming systems, Digital Kultur makes it easy for participants to take part in a series of festival activities. The Digital Kultur logo consists of 10 curved lines that symbolize the number of island groups in Indonesia. Blue colored circles (blue ITB) symbolizes the ITB as a center of innovation in science, technology, arts and humanities.

![Digital Kultur Logo](image)

Figure 1. Digital Kultur Logo

Festival participants are managed online, starting from the registration process, auditions to the implementation of activities. Participants will perform live and record through the application of Digital Kultur from the cities or places, respectively, with the specification of facilities, infrastructure, and facilities adapted to the conditions of the local area. The selection and assessment process is carried out online, and only selected participants as finalists will be invited to perform directly at the festival venue.

Technological innovations from Digital Kultur open opportunities for people in all regions of Indonesia to take part in cultural competitions or festivals held. This Digital Kultur application can be an integrated system for organizing every cultural festival, that in turn, will support the development and progress of creative industries in Indonesia. Digital Culture has reached level 8 in the Technology Readiness Level (TRL), which explains that the system is complete and meets the requirements through testing in the actual environment.

![Digital Kultur Application](image)

Figure 2. Digital Kultur Application

Digital Kultur is designed to be one of the solutions to address technological challenges in the world of performing arts. The use of this application has been proven to be effective and efficient in organizing cultural festivals. It made it easy for participants to compete, perform, and express their abilities, even for large-scale cultural festivals involving dance, folklore, and other art fields.

b. Implementation of Digital Kultur Application in Festival

As a platform for organizing performing arts and cultural festivals, Digital Kultur has gone through an experimental test process through folklore festival activities for high school level in the city of Bandung with national level scope. People have used Digital Kultur and acknowledged that using it has enabled them to conduct a series of festival activities.
conveniently. In addition, they can assure that the length of time for audition results will come quickly, and this can make the costs incurred for the festivals much cheaper. The main point of using this application is the effectiveness and efficiency of the operational time of the festival, and it is a plus for the existence of Digital Kultur.

The following is a description of the stages and ways to use digital kultur applications:

1) For the organizers of the festival and performing arts. Anyone can use the Digital Kultur application to hold a cultural performance or festival, such as music, dance, and other art performances. For organizers of performing arts or festivals, the application facilitates registration and selection/audition processes entirely online. They can also save costs by no need to come to the festival destination only to find participants or audition. The organizer only needs to prepare performance or festival materials, which is then displayed on the Digital Kultur website.

The administrator of Digital Kultur will manage the system, from the registration to the online audition/selection process. The organizer can also determine the members of the assessment team for the audition. Judges or assessors can directly select festival participants online, using an account specifically created for personal use, which ensures the confidentiality of the results of the assessment. Even the organizer cannot access the account.

2) For Judges/Assessment Team

From the standpoint of the assessment team or the judges, Digital Kultur application enables them to give judgment and decisions without interference from any party, because the process is done online and a special account given to individuals. After the judges log in to the application, audition participant data will immediately appear in the form of recorded videos uploaded online. The judges will just click on the view from the video to see the appearance of the participants. If it is finished, the jury only has to choose yes, or no, and provide comments in the column provided, then, the results of the assessment will be immediately submitted by pressing the submit sign.
The confidentiality of the results of the judging is guaranteed because after being submitted by the jury, the assessment is immediately recorded in the Digital Kultur system. The organizers will only get the data of participants who are qualified for selection, while the assessment result will not be given. The administrator of the application system can only access the assessment through several security stages.

3) For Participants
Digital Kultur application for participants conducts through several stages, which are basically easy to follow. Starting from the registration process by logging into the website, then, choose the event, or a festival to attend. After selecting an event, participants should again register in a selected festival page. By this way of doing, it gives the participants assurance to follow the festival online.

Figure 4. Assessment page in Digital Kultur application

Figure 5. First step for participants using Digital Kultur application
After re-registration, participants will pay the festival’s fee by completing the payment form. Payment can be made by bank transfer or other payment gateway provided by the Digital Kultur system. If the payment has been made, the system will direct participants to the account page. Then the festival logo will appear with the inscription audition. That is, participants will do a live audition in accordance with the time specified by the organizer of the festival.

The selection of the participants and the auditions are scheduled according to the organizing team. The audition process is carried out in two stages: first, conducting a live record directly from the application page; second, uploading video files that have been previously recorded. The reason for sending the video of the audition process in two stages is to anticipate if something goes wrong in the live record process. In addition, this was done to make it easier for the judges to make an assessment, especially related to the participant's originality in displaying their artwork and performances. The results of the audition will be available on the website after the participants send the video, and the judges finish the assessment.

The main point of using this application is the effectiveness and efficiency of the operational time of the festival. This is the added value contributed by the existence of Digital Kultur. The target of Digital Kultur as an application for organizing performing arts and cultural festivals in the Creative Industry Framework 4.0 in Indonesia, is that the application can be used by several parties, including: 1. Creative Industry Sector (music and performing arts); 2. Institutions (formal and non-formal) engaged in the arts and culture; 3. Artists / Musicians / Culture / Art Performers; 4. Production House and Talent Search; 5. Regional Government; especially those engaged in the arts and culture; 6. Community of arts and culture; 7. Society

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**Figure 6. The Audition step for festival participants.**

**Figure 7. General Stages using Digital Kultur for Participants**
CONCLUSION

Digital Kultur is designed and created to provide convenience and comfort for participants, as well as the ability to streamline time and energy for a better performance. By using this technology, participants should not necessarily be present from the start, and festival activities can be done in many locations simultaneously. The main point of using this application is the effectiveness and efficiency of the operational time of the festival. These are the contributions of the advancement of technology to the development of culture. Digital Kultur provides opportunities for greater participation available for everyone, and people can use this application in all regions of Indonesia, from Sabang to Merauke, and from Mianggas to Rote Island.

REFERENCES