The Creative Process of Dance with Technology in the Era of Super Smart Information 5.0

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Abstract. Development technology in the era of Society 5.0 a lot influence various activity people in the world, incl dynamics development creation based dance work technology. In a virtual dance work, there are two elements of art that combine, viz choreography and videography. Dance artists now not only have to dance, but also have to think about how the dance can be recorded properly and become a virtual performance. Dance is faced with two possible futures, between returning to its original format before the pandemic or transforming into a new format, namely virtual dance. Aim writing this want give description information about the creation process-based dance work technology. Study this done through design study qualitative for describe results innovation and change in shape and form creation created art virtual technology based. Research data obtained from results observation, interview and study documentation from created dance. Result of study this shows the work process dance through technology capable create product new in based dance creation digital technology. Motion text as a medium of expression main capable strengthened and collaborated with strength technology in emphasize the message you want delivered by the choreographer. Creation this as one example for development creation further in the future with take advantage technology in the process of its creation and performance.

Keywords: Dance · Technology · Movement · Virtual Dance · Dance Creation

1 Introduction

Technology moment this actually more from simply creation goods, objects or tool from man as homo technicus or homophaber [1]. Technology even has Becomes something system or structure in existence human in the world. Technology no again simply as something results from power existing creation in capabilities and advantages human, however he even has Becomes a "power creator" standing outsideability man, which in turn then shape and create something community another human. Technology is all Skills man use sources power natural for solve the problems he faced in life. Kindly more general could said that technology is a system [2].

Historical facts has proven how big share art and technology in donate role form dynamics civilization human. With progress civilization that man the more enjoy life and can eliminate problems as consequence activity to reaction environment his life. Life

the harmony Among art and technology is a inevitability in planning product in matter this is in context dance creation. Connection both of them could personified like mark piece currency, mutual complement each other need one each other. Likewise, creation something production art without accompanied with technology will occur infertility. Cooperation, collaboration Among art and technology with thereby no could bargain, a inevitability if something want innovate or changed. Art give touch on appearance form and technology give touch on the process of creating form the. Each one gives touch. Touch art and technology form design planning product which is processing element the form used rule design with full consideration, no expression overflowing spontaneous, but gentle touch full prudence, thoroughness, precision high, with notice many aspects responsible [3].

Society 5.0 is society that can finish various challenges and problems social with utilise various innovation born in the era of the Revolution Industry 4.0 such as the Internet on Things (internet for all something), Artificial Intelligence (intelligence artificial), Big Data (data in total large), and a robot for Upgrade quality life human. Society 5.0 can also interpret as a draft human centered and community-based technology. Facing this era of society 5.0 needed 6 literacy ability base like data literacy ie ability for read, analyze, and use information (big data) in the digital world. Then literacy technology, understand method work machine, application technology (coding, artificial intelligence, machine learning, engineering principles, biotech), finally is literacy man namely humanities, communication, & design [4].

Era society 5.0 was inaugurated on January 21, 2019 for anticipate turmoil disruption consequence revolution Industry 4.0, which gave birth to volatility, uncertainty, complexity and ambiguity (VUCA). Worried turmoil meant could degrade values humanity. Ex-prime minister Japan 's Shinzo Abe explains in the World Economic Forum (WEF), that "in the era of society 5.0, no again capital, but data that connects and drives everything, help fill in gap between the rich and the less lucky". Actually, concept revolution industry 4.0 and society 5.0 are not have big difference. Revolution Industry 4.0 uses intelligence artificial (artificial intelligence) while society 5.0 focuses to component the human. In other words, revolution Industry 4.0 makes We more modern because have access to technology and society 5.0 is a period where technologies this Becomes part from human. Society 5.0 became draft human centered and technology based. Because, society 5.0 makes an effort synergize digital concept with humanistic so that will give birth to balance Among achievement progress technology and upgrades superior quality human resources. The era of society 5.0 demands We for finish diverse challenges and problems social with utilise various innovations born in the era of revolution Industry 4.0 such as the Internet on Things (internet for all something), Artificial Intelligence (intelligence artificial), Big Data (data in total large), and a robot for Upgrade level life man [4].

2 Methodology

Research design done through approach qualitative for describe description thorough about the creation process based dance work digital technology. This method is used to describe data in an actual, realistic, and systematic way in create choreography based

on digital technology, so results study it is easier to expose and well described in the results. The research subject is a dance work entitled Bambu Mask which is a dance work presented in a manner deep virtual Gyeryongsan Mountain International Dance Festival in South Korea The data collection techniques used were observation, interviews, and documentation. Data analyzed with method described based on grouping themes and subtopics discussion through coding title the discussion.

3 Results and Discussion

3.1 Background Behind Draft Creation Virtual Dance Works

According to Malatunny [5] explain that Konrad Lorenz (laureate Nobel Prize in Physiology or Medicine 1973) also express in his phrase which reads: "More than any other product of human scientific culture, scientific knowledge is the collective property of all mankind [6]. "Time for Indonesia as a big country play role important and slowly arrange step always involved active in answer challenges and needs in the era of super smart society. More further, presence Public skilled academic use approach knowledge interdisciplinary, multidisciplinary, and transdisciplinary very needed for dissect problems in the era of society 5.0 and recommend solution best. Key success a college tall is where he supported by human resources in it, and also its ability to "marry" between discipline knowledge knowledge Becomes interdisciplinary, multidisciplinary, and transdisciplinary. Cause, result study Malatunny [5], shows that, a lot inherent problem strong in life man no effective again could resolved with approach one field science (mono discipline). Interdisciplinary means cooperation between one knowledge with other knowledge so is one unity with method separate So, integration Among one knowledge with other knowledge can form one knowledge new, with method new. Multidisciplinary means work same Among knowledge knowledge of each science knowledge the permanent stand alone and with method alone.

Next, super smart information technology has change condition order life Public almost in all elements, especially in the world of art. Previously all information no internet based. Phenomenon this not yet once happened in the previous era, the era when digital information media technology yet found. History shows that every technology found will very strong impact for life human. Technology invention alphabet, raises change in interaction communicative human, from oral to writing, from life models based on myth to logos (philosophy then Becomes knowledge knowledge). This century is also marked with exists revolution Industry 4.0 marked with development technology very fast-moving information [7].

Peaked when he found machine print by Johannes Gutenberg. Then occur Culture read, man think independent, solitude / individualistic. Invention technology machine steam change life Public from 'gotong royong' to attach importance collection treasure in a manner personal. Art becomes very personal and full expression contemplation, history is linear, product Becomes industry massive and consumptive, stage art is very distant, artist and audience. Now entered the post- industrial era namely the era of digital technology with he found technology, computers, satellites motion life changes Becomes from Continuity Becomes simultaneity, space centralized Becomes pluralistic. Information digital to change interaction physical Codition in the age of technology this

sudden surprised with appearance pandemic by covid-19. With exists technology this is a working model changed drastic, congregated model of society changed isolated, reality concrete changed virtual reality (hyperreality). Order economy changed many have lost work and also who earns profession new. The art world has experienced this too upheaval, art performance banned/restricted, sponsorship withheld, online becomes choice not unavoidable. Creation digital information technology impact on programming module performance, management -digital art, education art oriented digital information technology and building program down to regions remote yet literate deep digital technology live art local/tradition [8].

Technology looked at as extension hand from -modern science considered always deal with certainty rational and all measurability logic positivism. Temporary art in general seen as identical praxis with uncertainty, interpretation personal, and subjectivity. On the side in addition, technology is also considered as embodiment real from ambition progress civilization modern way concrete impact on human life. Looks very there is corner conflict view from public common among both. In his journey history the presence of creators who marry art with technology the more lively. Development current information and making glitter progress technology be an opportunity in development field art included innovation for dance [9] field.

In the world of dance in Indonesia, developments technology with use the first internet facility time developed Miroto in novelty his work and holographic models as well telehololologist afi s as the medium [10]. While Harry Nuriman use device technology with using Motion Capture (MOCAP) media for detect and digitize n dance moves. Both of them take same object namely dance with use development technology but the goal different. Outside those other possible opportunities used for marry dance and technology are Virtual Reality (VR) and Augmented Reality (AR) media [9].

3.2 Creation Process Bamboo Mask Dance Work

The creation of the Bamboo Mask Dance by Ayo sunaryo use device super smart information technology in the process. This dance work performed in Indonesia and watched by the people of South Korea in Gyeryongsan Mountain International Dance Festival 2021 for free live real time. The tools used use internet connection and computer equipment for transmit visuals.

Creation Process Bamboo Mask Dance Work (Fig. 1–3).

1. Make choreography.
   Choreography made especially formerly with notice uniqueness traditional and design pattern floor for proscenium stage.
2. Prepare Proscenium Stage.
   proscenium stage is a must prepared because camera designed only take part body dancer part front just.
3. Prepare internet connection.
   Internet connection becomes very vital for transmit visuals. Kindly the whole Internet is network mutual big relate from networks computers that connect people and computers around the world, via telephone, satellite and systems another communication.

4. Prepare Camera.

   Camera must prepared for take visual image to be transmitted to the computer for processed. Camera used can with resolution DSLR camera high.

5. Install device soft.

   Installation device soft must done for operate visual data to be connected to the device other. One of them is the OBS or Open Broadcaster Software Studio or OBS app is a device soft or software that is open source (free) whose use as offline video recorder and live streaming compatible with Mac, Windows, and Linux.

6. Prepare Device Hard.

   Setup device hard like computer must check especially formerly to support the device software used. Device hard computer is all part physical computer, and differentiated with the data in it or operating within it, and differentiated with device software that provides instructions for device hard in finish his job.

Fig. 1. Dancing exhibition.

Fig. 2. Process of taking picture.

Fig. 3. Necessary tools.

4   Conclusion

Based dance technology is still considered problematic because of the disappearance of the clear boundaries between dance and film works. In virtual dance works, there are two elements of art that combine, choreography and videography. Dance artists now not only have to dance, but also have to think about how the dance can be recorded properly and become a virtual performance. His contribution to creation is limited or

wide imagination artist (and of course just Skills in manipulate digital technology). In context choreography, digital technology for interests alone no interest great artistic. This is basically is tool sophisticated as possible enhancement art choreographer. His contribution to creation is limited or wide imagination artist (and of course just Skills in manipulate digital technology). Dance is faced with two possible futures, between returning to its original format before the pandemic or transforming into a new format, namely virtual dance. Dance creations after the pandemic may face two choices, namely dance returning to the old status quo, or becoming a new form. Technology and art are now a sexy shot by creators to create works with new media. Overseas this technological progress has been responded first. However, in Indonesia, there are no less pioneers in dance production who respond to technological sophistication in creating their works.

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