Research Article

Creative Work and Production by Makers: The Case of the Seoul Metropolitan Theater's Applied Theater Class

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Abstracts:

Our technology has moved from the PC to the mobile. The technological change gave birth to various types of online platforms, transforming cultural technology itself. Citizen's work and production after the COVID-19 pandemic will head to a digital, virtual stage and make a turning point for the cultural industries. Korean platform market has shown promising results so far. All around the world, everyday life is ready to enter the virtual world through an online platform.

Applied theater programs on the online platform are not about offering one-way play form. They are educational programs that allow people to experience subjective play (learning-activities-production) and create a virtual circle for the local community. It is why this study analyzes the work of 'makers' engaged in production activities on the Internet. An analysis of the applied theater class will follow to present a model that users can learn as drama-play. This study will examine the stage of educational program (learning-activities-production) involving the maker's space for the applied theater.

A maker's creative work in a virtual space entails activities and productivity for a clear purpose in social, economic, and cultural relations. This study will examine two things. First, it will look at the form of participation and experience in play by makers and review recent cultural technologies and their application. Second, the applied theater programs can solve problems for their community on the Internet, building social relations as a sustainable online community. The study will review the online platform as such an alternative.

■Keywords:| maker | applied theater | creative work | Seoul Metropolitan Theater | online platform | applied theater program

1. Creative Work and Production by Makers: Where They Are

As the COVID-19 pandemic has made the entertainment environment contact-free, many small and medium production companies shut down despite the government policy to support and promote their business. Ironically, the interest and arts and culture increased in return. It is crucial to develop an educational program focused on everyday creativity accessible by everyone, using and applying the cultural technologies needed for ordinary life. The program will foster creative human resources and cultural consumption[1]. As maker's culture is taking root, developing a digital educational program and applying online and offline is urgent[2].

Earlier public policy marginalized arts and culture and relevant labor. And the maker's work and productivity were hardly addressed unless they were related to space. According to Oh Kyoung-mi and Park So-hyun in "A Study on Public Policy for Makers' Culture (2016)," the so-called 'maker' culture became visible in 2012 at the time of Maker Faire Seoul. Since it formed a kind of trend, Seoul built a space for makers, the Maker City Sewoon. The authors cited Sewoon as an example of destroying the traditional technological ecology in urban development[3].

Creative work and production by makers in arts and culture have created a field for subjective participants. The trend influenced the citizen actors using the facilities of the Seoul Metropolitan Theater between 2019 and 2021. The citizen actors' work and productivity led to a discussion on various topics, including the physical theater, citizen actors, theater companies, festivals, and tourism[4]. The discussions revealed that the public policy on arts and culture had limitations in using cultural technologies. And there was not enough study on the role of maker's space and functional online platforms in the maker culture[5].

The pandemic situation now signals a change in digital production and distribution structure or how the platforms are consumed and communities are used. According to Kim Ga-eun and Hong Mi-seong in "Effect of DME (dance maker education) Program on Creativity and Problem-solving Ability (2020)," there is a study to develop an educational program in the dance world.

The different way of making and consuming content in arts and culture in the pandemic is likely to create a maker's movement, allowing everyone access on a daily basis. As the Internet users increase, educational programs will be developed using diverse tools and enabling digital production. In analyzing preceding studies for this study, the focus has been the need for education in digital production as the existing applied theater programs approach the theater as a composite art form in online and offline environments.

First, there is the maker's culture and cultural industry. The recent Internet suggests exchanges where sharing and opening are possible by media production or communication. A maker "was born from the hacker culture of the 1950s MIT programmer group, and today's makers are individual producers and the sympathizers of a particular social movement[6]." Their work is about sharing and exchanging knowledge and technology for problem-solving, by accessing the digital commons (common resources)."

In the maker culture, creative activities are based on collaboration, evolving from DIY (Do It Yourself) to DIT (Do It Together) and DIWO (Do It With Others)[7]." Early Korean makers tended to value "the establishment of a community over securing tools[8]**,** and the trend continues now.

Recently, creative work and production on the multi-channel network (MCN) like Google's Youtube are used to promote local products. One-person media[9], the so-called influencers on local or international MCNs, started to realize a profit, going more corporate by getting more people and resources. In this sense, creative work by makers produced positive results, promoting consumption by collaboration[10].

One example is Zepeto, a metaverse platform for a virtual world backed by the Korean Internet service provider Naver. Zepeto users can transfer their real world to the virtual environment, solving local problems as a community[11]. The virtual world or reality uses an urban model to promote a region or local products to prospective consumers[12].

Second, makers are used in local policy[13]. There are aspects of **education for digital production and local revitalization**. A makers' movement is fundamentally about "sharing knowledge, equipment, and space," and "non-profit organizations form a community to create and share products and services as a community, becoming a civil society working together[14]." So far, makers have worked on an online platform based on open source sharing among makers—the connection made is about the platform and investment and distribution channels[15]. **As for the education of digital production,** the pandemic has affected public policy and research in this regard. One example is Park Tae-jung's "Developing and Applying Design Principles for Maker Programs Using Virtual Reality: Focusing on the Development of Simulation Application." Here, the online platform is suggested as an educational program for makers based on AR (augmented reality) and VR (virtual reality) technologies. The VR simulation app for an educational purpose can teach people how to use tools to make digital content, allowing them to experience the process of tinkering and rapid prototyping.

As for the local revitalization, there are strengthened PR and marketing efforts. 2020 Seoul-SBA (Seoul Business Agency) Creative Force (https://www.sba.seoul.kr) shows the Seoul Metropolitan Government's policy for a one-person media group. It is a program that supports one-person media projects with industrial content and product marketing for small and medium businesses. The produced content included animations, webtoons, merchandising, and comics. The PR marketing suggested the use of a new-normal platform[16].

In arts and culture, "education has moved away from the traditional way toward result-based maker's work[17]." Cultural technologies require a structure of "two-way communication online between software and hardware[18]." While "the previous work by makers separated the outcome from the process," the work in the arts and culture world has gradually become "holistic activities to acquire creative values[19]."

The creative work in the applied theater moved from the use of physical theater in each region, which was related to urban regeneration by producers. Then the trend spread across the country. Citizen actors or cultural workers established a theater company individually or as a group, consequently getting involved in cultural activities or content production. Applied theater companies gave a reading of drama, offered training programs, and participated in festivals. These activities are not much different from the programs run by conventional academies[20]. Although there were some work and production by local communities and applied theater companies to achieve "independence by doing it together and collaboration," problems were identified, such as budget, human resources, physical space. It turned out that they needed a supervisor to make the model sustainable[21].

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2. Applied Theater Makers: Creative Space and Community

1) Building Applied Theater Makers' Space on Online Platform

(1) Applied Theater Makers' Space

According to the development plan for the Sejong Center for the Performing Arts[22], the Sejong Center will "pursue to develop and apply training programs, foster more original plays for the Seoul Metropolitan Theater (SMT), invite more Seoul citizens to the Sejong Center spaces, and create a culture of community for the people of the world[23]."

In 2009, the SMT implemented the Applied Theater Class for the first time. By 2010, a creative drama class was up and running, in which "citizens participated and wrote a play." The purpose was to help citizens better understand theatrical arts and create and produce a performing art piece[24]. The Sejong Center's space, the SMT's people, and outside experts run the Applied Theater Class. The programs helped citizens to create a story and produce a performance in the end[25].

The Applied Theater Class has two aspects: the play for performance (software) and the performing venue (hardware)[26]. However, the COVID-19 pandemic radically changed the environment of performing arts. The Sejong Center published performance notices on the website and temporarily offered viewing on Youtube. However, there is no applied theater training program on the online platform yet. This study will examine how the SMT provided the hardware in the form of a venue to "help makers' productive work on multiple layers as they realize creativity in daily life[27]." Then the study will analyze various efforts made by leaders or participants (trainers or staff) from the Applied Theater Class.

First, the hardware aspect shows limited cases of spontaneous work by individuals and groups of the applied theater. Citizen actors and their theater companies worked for the musical, theater, choir productions at the Sejong Center[28]. Yet, their activities were not sustainable.

The recent pandemic situation has made an online platform a "crucial path to help materialize creativity in daily life." It means that the maker's space needs to be approached from both online and offline aspects as a center for applied theater[29].

Second, the software aspect is essential. The Sejong Center's selection of works for production influenced both the SMT and the citizen actors. In building a maker's space, the selection process will be necessary for the citizen actors to engage in cultural work and content production[30]. The applied theater programs produced either their own collaborative original plays or established plays (Korean and translated). Between 2009 and 2020, the SMT Applied Theater Class produced a total of twenty-four plays[31], but since 2015, they produced fewer collaborative original plays. Most of their productions are based on established Korean or translated dramas[32].

It is necessary to determine the criteria of work and production when an applied theater program is established in a maker's space. It is essential to decide how to assign dramas to produce, citizen actors, cultural workers, applied theater leaders (playwright, director, and crew). Strict principles and criteria are needed because "technological tools should prepare for ethical foundation and systematic institutions. In addition,

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technologies must be developed and applied to facilitate actual sharing and cooperation[33]."

Intellectual property rights must be prepared to protect various creative works posted online by citizen actors, cultural workers, applied theater leaders, and playwrights. By "securing exclusive rights for the profits resulting from creative works," it is necessary to systemize the use of open-source materials in the maker's community. **First,** "Creative Commons License (CCL) and GNU Free Document License (GFDL) can be tapped into. The CCL allows selective setting for copyright owners, non-profit use of materials, and prohibition of change." **Second,** "GFDL guarantees free distribution and reproduction of most of the content." **Third,** "Open Source Hardware (OSHW) suggests Fab Commons give freedom to make changes in the secondary use." Currently, in terms of the creator's rights, "the license is valid not as a legally binding clause but as a kind of pledge. It is something for promotion and encouragement rather than protection and regulation[34]." Accordingly, there should be enough discussion on intellectual property rights when building the hardware in the maker's ecology.

(2) An Analysis of the Applied Theater Program

According to the "2011 White Paper of the Applied Theater Class," the program had three phases. Phase 1 was lecturing, phase 2 was creative works, and phase 3 was the actual production based on two previous phases. The SMT Applied Theater Class has maintained the structure until very recently.

In 2010, for example, Phase 1 lectures were about Augusto Boal (1931-2009) and the Theater of the Oppressed, discussing various techniques such as newspaper theater, invisible theater, forum theater, and the rainbow of desire[35]. It is an opposite theme suggested by Nam Dong-hun in his "The Work of Applied Theater: From Experience to Engagement." Nam suggested that the 21st century saw "the realignment of social life focusing on knowledge and creativity, as the society moved from the industrial to the information era." While the traditional society became "diversified, decentralized, and out of Procrustean bed, the consumers began to change fast, which lead to the emergence of a consuming human or homo consumus." According to Nam, the birth of homo consumes underlined the aspect of consumption in our society. Increasingly, open individualism promoted personalized consumption and self-expression, promoting "communication exchanges" simultaneously[36].

Here are actual details from the three phases of the Applied Theater Class. **Phase 1** offered various classes on theater using lectures, PowerPoint presentations, DVDs, and other audio-visual materials. Professional actors showcased a scene from a drama. Participants studied the general introduction to theater, stage movements, diction, and makeup. In detailed tasks, participants learned how to express themselves on stage and enjoy theatrical arts better. They also learned how to use their bodies to express feelings. The diction was about how to speak on stage better. The makeup class was to understand how to reinforce a character's personality with the stage makeup. Participants experienced the process by actually doing the makeup on their own.

Phase 2 offered creative works divided into two. Participants could select a team either for existing Korean or overseas (translated) play or collaborative creative writing. The latter was about finding a theme and materials from one's real life. A director was assigned for the existing play; a director, a playwright, and a supporting lecturer (actor) were assigned for the original play. Citizen actors attended the course they selected on

designated days, and there were a total of fifty-four classes. The original play team had to do a workshop to find a theme to write a play, helped by the professionals. They also studied acting, mime, and singing.

Phase 3 was the final outcome, namely, the actual production. Stage professionals were involved in producing each piece on stage. There were play-writing and dramaturgy sessions to produce a 60-minute, one-act play. Each team presented the work they selected. The presentation followed the actual stage-production process, including set-up, rehearsals, and performance.

An analysis of "2010 Applied Theater Class: Phase 2 Acting Class" shows us the three steps in class. **First, open up your heart.** The participants were divided into small groups and talked about various themes based on personal stories. **Second, loosen up your body, open up your senses.** The participants played games and practiced body movements to express feelings and wake up the senses. **Third, use your imagination.** This step was about writing the play for production. **Fourth, express your feelings as the character in the play.** The participants now had to analyze the play and characters for acting, asking twelve questions for the analysis.

① What is the character's objective throughout the play? ② Which objective in a particular scene contributes to the character's development of a purpose? ③ What is the central conflict in the suggested scene? ④ How is the scene's conflict related to the conflict of the whole play? ⑤ What does the character do to overcome obstacles that trigger conflicts? ⑥ How do internal conflicts of characters start, develop, and get resolved? ⑦ What are the relationships among characters? ⑧ How many contexts the suggested scene can have? Break them down into each context. ⑨ What is the primary behavior of each character under each context? ⑩ What are the external responses that tell you the space and time of the scene? ⑪ What are the actions immediately before the suggested scene? ⑫ Why do characters use humor in the suggested scene? Why do they talk? What is the meaning between the lines? Is there any behavior that goes against what they are saying?.

There was also a special guest lecture. Professionals from the field came to speak. Other classes also offered various practical sessions, including street festivals, how to produce a community theater, and playwright 101.

2) Maker's Community: Method and Scope

Kim Kum-mi discussed the method and scope of the maker's community in **"**The Development of Citizen's Cultural Movement and Applied Theater: Rebuilding and Expanding the Community of Living Culture." The SMT Applied Theater Class participants use a community format based on in-group communication, not sharing something outside on a new-normal platform. Three improvement areas were suggested.

First, as the sharing and opening become standard in information sharing[37], the citizen actors need to use the social network and online platforms to communicate, share, and open the content produced. **Second,**

although existing production practices are making up for "insufficient compensation" for makers doing professional work[38], specific alternatives are needed to compensate for the work and production of makers who produce specific outcomes in the applied theater[39].

The conventional maker's culture was "purpose-oriented to build a virtuous circle based on sharing and cooperation." The aim was to strengthen problem-solving ability by making them "face the process[40]." This is the **third** improvement area. Makers should be considered "the producers based on common resources and collaboration," not just someone who "share and receive techniques or outcomes[41]." The applied theater program is suggested as a holistic work in "process-oriented activities," allowing citizens to approach the theater as a composite art and experience it. This, in turn, would promote consumption.

Citizen's work and production have an aspect of cultural consumption with the birth of prosumers who "act as producers as well[42]." Prosumers are divided into amateurs, making the User Created Content (UCC) and proteurs (a coinage meaning professional and amateur) quasi-professionals. But "consumers are gradually getting involved in the manufacturing of the products they are going to consume[43]." They use various local and international online platforms for that purpose. Therefore, despite the division, it is difficult to tell professionals from amateurs. The producers or so-called prosumers are highly personalized consumers, and they consume as a way of self-expression. They share things and make exchanges with "those who have similar tastes[44]."

The creative work and production by amateur makers have been based on "full openness" and led to "active cooperation and information-sharing as individuals share a clear sense of goal and get fair compensation[45]." There is a move to redefine "an amateur producer as someone who pioneers possibilities with ideas in freedom, rather than some novice [46]."

It is possible to see the COVID-19 pandemic and the fourth industrial revolution as the realignment of various labor resources. Now, it is urgent to discuss the labor ethics for the producers working on different platforms. Although they collaborate on multiple levels to share knowledge and act out values spontaneously and openly, the scope and form of online platforms must be presented by specifying the common ground.

Accordingly, **first**, it is crucial to improve the open-source if relevant public institutions can open and share the software development information. **Second**, it is necessary to create an online platform where a community pursues to achieve a common goal, solve problems in the process, and produce a specific outcome. It has to be rid of a hierarchical structure and allow access to anyone: it has to be like a holistic art, "creative production beyond conventional ideas, hierarchy, boundaries that used to exist in the traditional occupations[47]."

There should be more education in this regard for the post-pandemic era, in the form of media or digital literacy, so that citizens can participate in solving problems on these platforms[48]. It is necessary to "prepare for contact-free lectures by redesigning and securing digital devices and spaces at a later stage [49]."

3) Implications: The Applied Theater Programs to Develop in Maker's Space

First, there is a policy perspective regarding how to use makers. According to Kwon Hyeog-in in "An Analysis of Management Factors to Promote Korean Maker's Space," all age groups can pursue ideas and learn

information technology in both digital and physical spaces. A maker's space is considered an irregular educational space where they create something new in arts, science, engineering, and other areas[50].

"Korean maker's space spread fast with active public support[51]." However, there is a need to "stratify, diversify, and specialize makers to standardize maker's ecology in management of the space." In particular, there are areas to be improved in management because of the "limited access by user-learners, absence of makers' networks, and insufficient online and offline platforms[52]." Alternatives for improvement are needed, especially in arts and culture.

There are practical administration issues in the maker's space regarding how long the virtual classroom can be used[53]. Park Tae-jung suggests a possible solution in this regard: to develop VR-based educational programs for makers, which anyone can access regardless of time, venue, and the number of connected users at one time[54].

The suggestion can be considered for the applied theater program, too. There are two approaches in the "application of VR technology to actual education" for learners. The **hardware** (display, input devices) aspect is about VR-based learning. The **software** (content, platform) aspect is about presenting, experiencing, and manipulating the network[55]. Both aspects should be considered in the applied theater program. The existing education for makers was about "learners using various materials, tools, and devices to design and develop an analog or digital outcome for sharing[56]."

On the hardware side, the online platform should have functions and roles to boost cultural activities and productivity. When categorizing the applied theater program, detailed sub-processes must be presented. From what we have seen before, there should be a technological approach to help "individuals understand subjective technology and use it." Three things are required. **First,** it is necessary to distinguish online relationships (among citizen actors, applied theater leaders, and educational leaders for video and technologies). **Second,** the maker's work should be clearly specified for the exclusive ownership, modification, or limitation of information online. **Third,** the platform must have a functional system to make applied theater leaders (lecturers, directors, crew, actors) serve "for everyone to realize generativity with open creativity[57]." There must be indices to compensate for the activity and productivity of all makers, including the applied theater leaders. The SMT Applied Theater Class curriculum may be a good reference. They offered many introductory workshops closely related to the course objectives[58].

Kim Ga-eun and Hong Mi-seong, in "Effect of DME (dance maker education) Program on Creativity and Problem-solving Ability," suggested a 5-step program consisting of inspiration, design, sharing, improvement, and execution. They also suggested the use of a smartphone app and Paddlet for education. It may be worth considering an online applied theater program. Step 1 is about inspiration, raising issues, researching materials, and using techniques to find a theme and content of the work. In selecting the topic, there was increased curiosity and focus among participants. Step 2 is about design. Participants can use media, try various movements, raise issues, design expressions, and movements, and use various techniques. Steps 3 to 5 are about appreciating the work itself. Step 3 is about sharing, raising any issues, and presenting the work. Step 4 is about improvement. Step 5 is about execution, a final discussion on any issues, and a final work presentation. The

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sharing in Step 3 is crucial as the sharing process should help accumulate a wide range of knowledge and improve imagination and creativity for problem-solving[59].

If a maker's space is to be on the online platform, makers' activities and productivity must be subdivided and presented as play at first. And the makers must be considered as prosumers, not as passive recipients of culture. "The process of building a network for producers pursuing a hobby, not professional interests," can have a greater effect. The early model should be based on "creative work recognized by professionals[60]." The Zepeto app by Naver used metaverse or virtual world to produce diverse knowledge. And it invited subjective and active participation by Generation Z. The favorable reception may be due to the change from PC-based to the mobile-based environment, which allows more unrestricted access to and use of information[61]. "The general use of smartphones can maximize the attractiveness, efficiency, and effectiveness of the VR-based learning[62]" to result in sound learning effects.

3. Conclusion

Preceding studies gave an idea of the areas and meaning of makers. The world is now going toward "a cooperative and shared society based on sharing economy and hardware for production." And the "cooperative consumption[63]" moves away from conventional practices in sharing knowledge and transferring technologies. The so-called one-person media in and outside Korea are using their expertise freely on online platforms like Youtube. They seem to maximize creative work and productivity, creating jobs in the end.

Jeremey Rifkin forewarned the "emergency of sharing economy, a new economic system in which many can use one good together[64]." However, in Korea, such sharing economy and maker's movement seem to be skewed to a specific group, that is, a producing group. And in the arena of arts and culture, the educational environment for digital production has its limitations. The current shift due to the pandemic requires a holistic discussion across all areas to "ensure the security of sharing and collaboration in culture and ecology[65]."

Korean communities on the online platforms and social networks heavily focus on promoting consumption and publicizing and market their content[66]. The entertainment business saw increased consumption in the performing arts world through online platforms with physical performance and media production.

This trend can be applied to the applied theater program in the form of a maker's space. This study examined educational methods and scope for digital production, which can be used in online and offline environments. In the education program for the applied theater, the online platform has to be developed with a framework of the theater in education (TIE). The program has to allow participants to experience and consume local arts and culture based on the TIE. This study focused on three aspects to redesign it for digital education. **First**, there are work and production by citizens or makers in the theater, using the hardware and software of the online platform. How should we boost activities and productivity in the online and offline maker's space? How should we build a compensation structure? **Second,** the SMT Applied Theater Class was analyzed to develop a framework and specific system. **Third**, the study had a cursory look at Generation Z's participation in online platforms by their subjective participation and production[67] as a reference to develop alternatives.

In the performing world, makers used to focus on physical, in-person activities. After the pandemic, the maker's cultural movement has been tapping on content production. The result-based community has expanded in the changing environment[68]. In the entertainment business, online production and distribution resulted in overcoming constraints by the COVID-19 situation. Although current science and technology have enabled most of the digital means needed for experiments and practices online, what is more important is the learning subjects' will to study than digital technologies[69]. The case is the same for the Korean art world because the production environment for makers has many physical requirements. Budget and human resources requirements are considerable, in particular. Therefore, it is challenging to produce a performance. But as for the applied theater, the educational program should focus the 'play' element for individual makers to expand creativity on a personal level.

The creative works by makers in the applied theater programs occurred mainly in the physical venue provided by theater companies. Although their community used to rely on an online platform, the communication and sharing of information did not happen. It is vital to building a maker's space for the applied theater on the Internet to improve the situation. Once the first step is taken, it could evolve into clubs or communities for the maker's movement.

"The creation, connection, and communication happening on the online platform like Youtube should lead to creativity and be enjoyed offline[70]." but it is happening yet[71]. Only a handful of applied theater companies use some online platforms, but the 'creative work' has not happened daily[72]. Therefore, it is necessary to provide various learning forms on the Internet. VR-based learning is one example, which will offer realistic visual and sensory interactions. Learners can easily apply what they have learned in the virtual space to the physical environment offline[73].

The software aspect of this new platform can benefit from what the SMT has been doing so far. Since 2015, the SMT Applied Theater Class has focused on Korean and international plays for production by established playwrights, with citizen actors (makers) performing on stage[74]. The citizen actors' cultural work and content production were presented by theater companies launched by them through readings, performances, festivals, educational programs, and other exchanges and collaboration with other groups[75].

The maker's space in the applied theater is an online platform with a systematic hardware and software composition. In a maker's space, all elements in the built space must focus on affordance and promotion of learning. Then responsibilities and compensations must be appropriately assigned to reinforce the inherent motivation for learning based on the system, including various games and objects. It is necessary to support a wealth of fun and interest by offering such content[76].

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