

Research Report

THE ISD GLOBAL COMMUNITY PROJECT

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ABSTRACT

We have been working on establishing Interactive Sonic Dance (ISD), a type of performing art for dancers and musicians. In order to spread ISD for larger numbers of diverse performers, we have planned to organize global collaborations as an incentive to attract artists who would use the ISD notation system for their collaboration and communication method. For that reason, we launched the ISD Global Community Project to create a cross-cultural artistic performance community starting in June 2015. This project is projected to take 3-years to complete. By June 2018 we hope to establish an ongoing open collaboration among 50 members from 20 different countries. In this paper, we will explain the ISD Global Community Project further after describing the background of ISD.

我々は舞踊家と音楽家のためのインタラクティブ・ソニック・ダンス (ISD) という舞台芸術を確立させるための活動を中心に行っている。ISD を多種多様な芸術家に普及させるため、グローバル・コラボレーションを誘因とし ISD 記譜法をその共同制作及び交流手段として使う計画を立て、2015年6月に ISD グローバル・コミュニティ・プロジェクトを立ち上げた。3年の企画であり、2018年6月までの目標は自由な共同制作が20ヶ国以上及び50名以上の会員によって継続的に行われる基盤を作ることである。本稿では ISD に関する経歴を述べた上で本企画について詳しく説明する。

1. INTRODUCTION

Collaborative processes between dancers and musicians are diverse and have cultivated the interactive dance community. From 1942, Merce Cunningham and John Cage had begun to collaborate works. They incorporated indeterminacy and chance operation into their works [1]. Moniek Darge and Godfried-Willem Raes have been working together since 1968. They performed HoloSound in 1983 with ultrasound technology [2]. Tomie Hahn and Curtis Bahn have developed SSpeaPer (the Sensor/Speaker Performance Interface) that is a wireless interactive dance system used for Hahn's works such as Pikapika [3]. Troika Ranch is an arts organization, co-founded by Dawn Stoppello and Mark Coniglio, who has developed Isadora, a software application [4]. Our collaborative approach has led us to establish Interactive Sonic Dance (ISD), a type of free style interactive performing art for dancers and musicians. We created the ISD notation system and sought a way to spread ISD for larger numbers of diverse performers.

After exploring various ways to promote ISD, we came to a conclusion that it may be achievable if we shift our focus to include global collaborations using the ISD notation system as a communication tool because of the growth of social networking services and easiness of creating media contents. Diverse devices (e.g., smartphones, laptops, tablets, and desktops) have allowed users to create versatile media contents (e.g., photo, movie, and sound) to share through web tools, including but not limited to Facebook, Twitter, YouTube, Instagram, and Drop Box. Video conferencing software (e.g., Skype, FaceTime, and Google Plus Hangouts) have allowed users to have video calls. Video streaming services (e.g., Ustream) have allowed users to broadcast their own contents live through the Internet. Web-based translation tools have facilitated users to communicate in different languages. Moreover, all of these tools are free.

In this thriving global communication environment, we will introduce the ISD Global Community Project to create a community where diverse dancers and musicians perform their collaboration works using the ISD notation system throughout the world. In this paper, we will introduce the background of ISD and then explain the project further.

2. BACKGROUND

We have experienced multidisciplinary collaborations for creating interactive dance works since 2008 [5]. Since 2011 we were collaborating to create interactive dance works and developing an interactive sound system for dancers using cameras to analyze dancer's motion to trigger sound [6][7][8]. Since January 2013, we have directed our research project, Interactive Sonic Dance Research Project (ISDRP) to explore the flexible interdisciplinary performing environments for dancers and musicians. Through those experiences we began to shift our focus from creating works that solely utilized one method of interaction to developing a notation system that provides creators with an option to switch interactions interchangeably during performances.

3. THE ISD NOTATION SYSTEM

Verbal and descriptive communication methods are commonly used for multidisciplinary collaborations. However, these methods could be ephemeral and verbose because the collaborators may not be familiar with contextual terminologies. Whereas, the ISD notation system would

provide a grammar that is to be graphically notated to establish the relationships between/among performers.

3.1. Practicality

We have introduced the ISD notation system to the following groups. Five ballet dancers (9-12 years old) created pieces using the ISD notation system to perform their choreographies on May 30, 2015. We introduced the ISD notation system and various performers read the work in the workshop held at the SEAMUS National Conference on March 27, 2015. The performers included three members from L2Ork, two professors from the department of music, and a student at Virginia Tech as well as conference participants. We presented how to use the ISD notation system for undergraduate and graduate dance majors at the Belhaven University in Jackson, Mississippi on March 16 and 18, 2015. Those dancers created their own scores using the ISD notation system and experimented and performed the scores with various combinations of dancers and musicians.

3.2. Salient Features

The ISD notation system is centered around the relationship diagrams of performers. Creators can add parameters around the diagrams if necessary. Additionally, other notation systems may be implemented onto the ISD notation system as supplementary documents.

3.3. Structures and Rules

3.3.1. ISD scores

Each ISD score consists of *Cues* and *Supplementary Documents*. Each *Cue* includes the following items. 1) *Title of the Work*. 2) *Index of the Cue* (Cue#, Cue Name, and Total Duration). 3) *Explanation* (Summary of the Cue). 4) *Start Cue and Duration*. 5) *Main Cue and Duration*. 6) *End Cue and Duration*. 7) *Page#*.

Supplementary Documents are 1) the explanatory notes for the entire work (e.g., concept, theme, scenario, narrative, and plot), 2) use of common notations for music and dance, and 3) any additional information.

Below is an explanation for how to write a basic ISD notation for the *Main Cues* portion of the ISD notation system.

3.3.2. Action and Performer Type

Action is the smallest unit of direction which makes *Performers* perform indicated by the *Performer Type*. D represents dancer, and M represents musician. *Performer ID#* can be added by placing a number after the *Performer Type* to differentiate one *Performer* from another (e.g., D1, D2, D3, M1, M2, and M3). *Description of Action*, notated by a word or a short phrase, can be added nearby each *Performer*.

D1 jump	M1: piano high pitch
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Figure 1. D1 jumps. M1 plays piano to make a high-pitched sound.

Certainty of Predetermined Action can be indicated by the three types of circles: predetermination (Open circle), improvisation (closed circle), and intermediate (half-filled circle). If not indicated, it becomes improvisation.

D1 ● swinging	D2 ○ traveling	M1 ◐ harmony
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Figure 2. D1 dances based on the predetermined movement idea of swinging. D2 improvises based on the idea of traveling. M1 plays based on the predetermined idea of harmony while sometimes improvising.

Choice with Bias grouped by a curly bracket allows *performer(s)* to select an *Action* from the list. *Bias* will characterize the orientation of the *Action*.


D1
 <ul style="list-style-type: none"> ◐ 80% slow ● 10% fast ○ 10% meandering

Figure 3. *Choice with Bias* that D1 can choose. The probability is indicated in percentage.

Layering grouped by a parenthesis indicates that multiple *Actions* will be performed simultaneously.

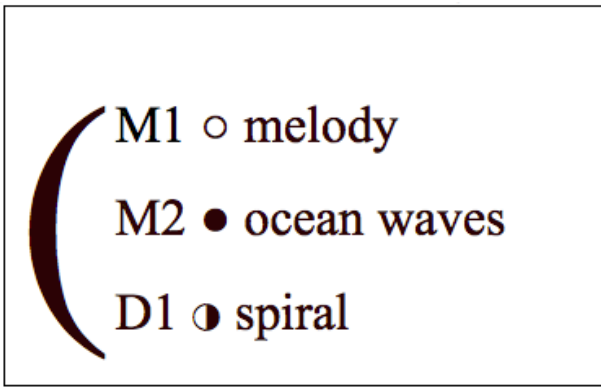


Figure 4. M1 improvises a melody line while M2 plays back a sound file of ocean waves. D1 dances based on the predetermined idea of spiral movements while sometimes improvising.

3.3.3. Interaction

Each *Action* can be connected to another *Action* to engage in *Interactions* which are determined by human senses (e.g., eyes and ears) and diverse sensors (e.g., cameras and contact microphones). *Interactions* can be indicated by the two types of arrows that regulate time between the two performers: *Mirroring* (arrow) and *Call & Response* (slash with arrow). The arrow points from *leader* to *follower*.

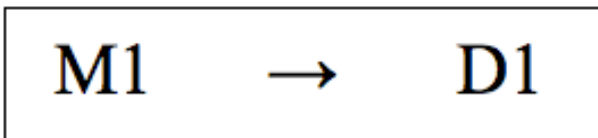


Figure 5. When M1 plays, D1 moves.

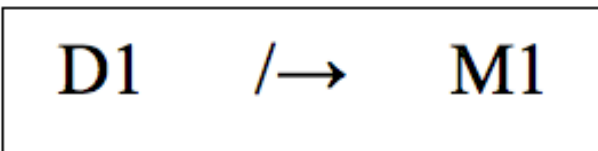


Figure 6. D1 moves. When D1 pauses, M1 plays.

3.3.4. Duration

Duration can be added at the end of each *Action* and/or *Interaction*.

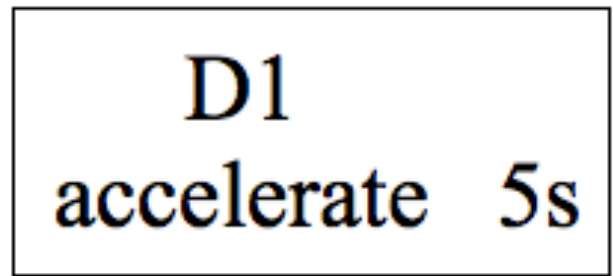


Figure 7. D1 improvises based on the idea of acceleration for 5 seconds.

3.4. How to Spread ISD and How to Use the System

In order to spread ISD for larger numbers of diverse performers, we came to a conclusion that it may be better to shift our focus to include global collaborations because we speculated that performers will be attracted by the cross-cultural collaboration opportunities rather than depending solely on ISD. We are planning to introduce the ISD notation system so that it can be used as a common communication tool for collaborators. As a result, we will be able to achieve our goal.

4. THE PROJECT

Consequently, we launched the ISD Global Community Project to create a cross-cultural artistic performance community starting in June 2015. Our vision is to create a cross-cultural artistic performance community where members communicate using the ISD notation system. Our mission is to share a joy of global collaboration with musicians and dancers. We provide flexible performing environments incorporating technologies, cultural diversity, and multidisciplinary artistic environments into ISD activities.

5. OBJECTIVES

5.1. The First Six Months

By the year of 2016, we will have startup members from at least 10 countries. We will ask the people who supported our research through the ISDRP, colleagues, and personal friends so that we can build trust and learn their performing arts, cultures, economy, politics, religion, geology, and meteorology. Based on our connections, the startup members will be from the following countries: Australia, Azerbaijan, Brazil, Canada, China, Croatia, France, Germany, Greece, Indonesia, Iran, Italy, Japan, Kenya, Lithuania, Mexico, Poland, Russia, Serbia, Slovakia, South Korea, Spain, Taiwan, UK, USA, and Zimbabwe.

We will do test-runs with the startup members. The purpose for the test-runs are as follows. 1) To find an executable number of collaborators and duration for the workshops. 2) To simulate how new members would feel towards the interactions through forums, group mail, email, and video conferences. 3) To experiment with various performance methods. 4) To inspect how diverse Internet speeds may affect the quality of our communications during live performances. 5) To examine how diverse time-zones affect collaborations. 6) To see how diverse loca-

tions, including the Northern and Southern hemispheres, are relevant for global collaborations.

We will endeavor to collect information from the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Organisation for Economic Co-operation and Development (OECD), international exchange programs, international communities, newsletters, ethnomusicologists and ethnochoreologists.

5.2. The Rest of the Years

By the year of 2017, we will develop the community based on the data obtained from the year of 2015. We will expand the number of the members and countries and select board members to increase the numbers of the webinar courses (workshops). By June 2018, we hope to establish an ongoing open collaboration among at least 50 active ISD members from at least 20 different countries.

6. STRATEGIES

ISD members will be communicating and collaborating through our website (www.isdgcpc.com). We will teach them how to use the ISD notation system through webinars and forums. We are hoping that the protocol will facilitate communication among ISD members. Our strategies include webinars, forums, protocol, and membership procedure.

7. WEBINARS

The webinars are short-term courses designed to engage diverse artists in global communications and collaborations. There are three types of courses, and ISD members can take them for free. For *Lectures*, we will communicate with the participants through email personally. There are two types of workshops (experiment and performance). For the *Workshops*, we communicate through the group mail so that all the ISD members can monitor what is going on in the current *Workshops*. The participants will receive a certificate from each course they complete. Once participants take all the courses, they may repeat and/or retake the courses in any order of their choosing.

7.1. Lectures

The description of the *Lectures* is as follows. 1) Designed for new members. 2) Single session of the lecture lasts 1 week (3 hours). 3) Applicants can take the lectures from any day. 4) One-on-One through email and/or video conferencing software (e.g., Skype). 5) To make a self-introduction movie in English and other languages. 6) To understand the ISD notation system. Upon the successful completion of the course, participants will be able to gain the following basic skills. 1) To introduce themselves to the ISD members through the Forums and Workshops. 2) To collaborate with the ISD members through the ISD Notation System. 3) To use a video sharing website. 4) To create works using the ISD notation system. Those who have already taken the lectures may retake as many times as desired so that they can explore their studies further.

7.2. Workshop Experiment

The description of the *Workshop Experiment* is as follows. 1) Designed for those who want to experiment with diverse genres of performing artists in the world. 2) One session of the *Workshop Experiment* lasts 2 weeks (5 hours) starting from the first and fifteenth of every month. 3) Group Collaboration through email and/or video conferencing software (e.g., Skype). 4) To share your self-introduction movie in English and other languages. 5) To apply the ISD notation system to create diagrams to experiment with cross-cultural and multidisciplinary artistic performers. 6) Cultural Exchange (e.g, dance, movement styles, gestures, music, singing styles, languages, diverse scales/harmony, and timbral imitation). Upon the successful completion of the course, participants will be able to experiment with ideas, and/or their ideas will be experimented by other ISD members.

7.3. Workshop Performance

The description of the *Workshop Performance* is as follows. 1) Designed for those who want to perform with diverse genres of performing artists in the world. 2) One session of the *Workshop Performance* lasts 4 weeks (10 hours) starting from the first of every month. 3) Group Collaboration through email and/or video conferencing software (e.g., Skype). 4) To share your self-introduction movie in English and other languages. 5) To apply the ISD notation system to create works to rehearse and perform with cross-cultural and multidisciplinary performers. Upon the successful completion of the course, participants will be able to perform works, and/or their works will be performed.

8. FORUMS

The forums allow ISD members to try the following items. 1) Group Discussions (e.g., greetings, languages, cultures, dance, and music). 2) Sharing (e.g., an ISD member shares ISD scores to be performed). 3) Mini Projects (e.g., performances of a work in several countries). 4) Reports (e.g., a movie clip of the results of performances). We will communicate through group mail and emails.

9. PROTOCOL

9.1. Preliminary Studies

Before any communication begins, we recommend that ISD members do preliminary studies of their collaborators' cultures, languages, and performing skills in order to break the ice, build trust, and narrow down the subjects for discussion.

9.2. Cross-Language Environment

Although ISD members communicate in English, we recommend that they use translation software to communicate with their collaborators whose native languages are not English to show a willing attitude towards understanding cultural diversity. Even though translations are not accurate enough to communicate, they would be useful for

word-by-word translations at least. Moreover, semantically illogical translations may provide joyful communication environments for collaborators.

9.3. Personalized Dictionary

We recommend that ISD members make their own personalized dictionaries which they acquired through working with their collaborators.

10. MEMBERSHIP PROCEDURE

Below is the procedure for how applicants may apply for the membership to become an ISD member.

1) Applicants access to www.isdgcpc.com. 2) Applicant click on the Login/ Sign up link to send a request to us. 3) We will ask them some general questions through email. 4) Applicants reply to us by answering the questions and signing the agreement. 5) Applicants will become an ISD member and be able to login to the website to communicate and collaborate with us and the other ISD members. There is no fee to sign up and the membership can be canceled at any time.

11. CONCLUSION

We are hoping that diverse performers from many different countries will join the ISD Global Community Project. In 2016, we will report the progress of the project to JSSA.

12. ACKNOWLEDGMENTS

We would like to thank Dr. Naotoshi Osaka and all the JSSA Board members to allow us to present our project through the movie and the online Q&A at the JSSA 24th Regular Meeting. We would also like to thank Mandy Milligan, Christine Settembrino, Ana Bird, Sullivan Boecker, Michael Lukaszuk, Evan Williams, Zhi-Xin Xu, and many other research assistants and faculty members who support us to create the ISD notation system through the IS-DRP.

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14. AUTHORS' PROFILE

Kazuaki SHIOTA

Kazuaki Shiota was born and raised in Osaka, Japan. He has taught Jammin' with Laptops and Japanese Pop, Anime, and Video Game Music at the University of Cincinnati, College-Conservatory of Music. He is going to teach all the courses through online starting from the Fall of 2015. He holds degrees from the University of North Texas (Bachelor of Music) and the University of Cincinnati, College-Conservatory of Music (Master of Music and Doctor of Musical Arts) in composition. He studied algorithm composition under Phil Winsor and computer music composition under Mara Helmuth. He was a board member of JSSA (2009-2011).

Karen WISSEL

Karen Wissel has taught modern dance courses at the University of Cincinnati, College-Conservatory of Music since 2012. She is going to teach a newly offered online course, *Modern Dance Basics Online* from the Fall of 2015. In 2006 she received her BFA in dance from the Ohio State University, where she studied under Vera J. Blaine, Lucy Venable, and Bebe Miller. She received her early dance training with Ballet Magnificat! under the direction of Kathy Thibodeaux and with Ballet Mississippi under the direction of David Keary. She has been a JSSA board member since 2009.