International Conference on New Interfaces for Musical Expression

Into the Abyss

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PROJECT DESCRIPTION

"Into the Abyss" is the first collaborative work composed and performed using a new [L2Ork Tweeter](#) platform for socially distant synchronous and collaborative instrument design, improvisation, composition, rehearsal, and performance. Consequently, every aspect of this work is devised collaboratively, including instrument design, structure, and performance. The platform provides a local synthesis engine coupled by a loop-enabled tracker for each of the performers whose clients exchange only the control data. The resulting setup offers pristine locally generated audio quality, and virtually perfect sync in a majority of use cases. To experience an example of platform's synchronization accuracy of a performance instance executed synchronously online with performers being located up to 250 miles apart, please fast forward the video to 03:23. The work was originally premiered in December 2020.

When experiencing the work, please consider using a quality audio system or headphones capable of properly reproducing lower frequencies.

PROGRAM NOTES

"Into the Abyss" is the first collaborative work composed and performed using a new [L2Ork Tweeter](#) platform for socially distant synchronous instrument design, improvisation, composition, rehearsal, and performance. Consequently, every aspect of this work is devised collaboratively, including instrument design, structure, and performance. The work was originally premiered in December 2020.

The work portrays a metaphorical journey of facing one's fears and taking that very first leap of faith off a cliff into a deep water well below. With a thundering splash, a terrifying free fall suddenly transforms into a soothing weightlessness, a life-changing experience that makes us question our own limits. Inspired by the COVID-19 crisis, this metaphor in many ways reflects the motivation behind the piece and the supporting infrastructure.

PERFORMANCE REQUIREMENTS

- equipment: The work is designed to be performed as a synchronous online performance. The only infrastructure needed for this format is the ability to pipe a stereo YouTube livestream into the concert. If presented as a fixed media piece, the

- space: Given the work is primarily online, no venue is required. If piped into a live venue, the livestream video (or the fixed media video) should be displayed on a large screen alongside the audio. In the event some of the performers attend the conference in person, optionally a hybrid performance with some performers being on stage and others being piped via internet may be considered, in which case a stereo audio output and a video output will be provided for the house. The performer(s) (no more than 3 and more likely 1) should be seated on the floor on the stage while performing.

In the event we are unable to recruit past contributors to perform this work, in response to the reviewers' comments, the alternative presentation format will be a prerecorded version of a past performance. This can be accompanied by a brief introduction that may help clarify the way performers utilize the platform to develop instruments, collaboratively compose, and perform.

- performer(s): The work will be performed by 7 performers, including the author. No additional performers will be needed.

- feasibility: The work was premiered in December 2020 with no technical problems utilizing low and medium bandwidth network connections from performers' homes up to 250 miles apart from the central server. Additionally, the work was rehearsed throughout the fall with dozens of hours logged using the said platform. As such, no major technical issues are anticipated.

MEDIA

- 1 to 5 high-resolution images or photographs in .jpg format
Photo(s) will be added if the work is accepted.

- 1 video documentation of the performance in .mp4 format
[http://ico.bukvic.net/Video/L2Ork Tweeter _Into the Abyss_ Studio Take.mp4](http://ico.bukvic.net/Video/L2Ork%20Tweeter_Into%20the%20Abyss_Studio%20Take.mp4)
OR
<https://www.youtube.com/watch?v=BBXPUuxOVu8>

- the identity and affiliations of the author(s) should not be mentioned in the title, description or opening/closing credits of the submitted media.
The video is fully anonymized.

BIOS

Virginia Tech Linux Laptop Orchestra (L2Ork)

Named as one of the top six national transdisciplinary exemplars ([a2ru](#), 2015), and one of the top eight research projects at Virginia Tech ([DCist](#), 2014), a contemporary multimedia ensemble Linux Laptop Orchestra or [L2Ork](#) (pronounced as 'lohrrk'), explores unique form of collaboration found in the western classical orchestra through the use of innovative human-computer interaction technologies for the purpose of exploring an integrative approach to design, engineering, arts, and science.

Founded by Dr. [Ivica Ico Bukvic](#) in May 2009, L2Ork is part of the interdisciplinary initiative by the Virginia Tech Digital Interactive Sound & Intermedia Studio ([DISIS](#)) and the Institute for Creativity, Arts, and Technology ([ICAT](#)). As the world's first Linux-based laptop orchestra incorporating extensive study of gesture and Taiji (Tai Chi) choreography L2Ork offers optimal infrastructure for creative research at minimal cost. By providing a seamless integration of arts and sciences it is in part designed to bridge the gap between STEM and the Arts, with particular focus on K-12 education. L2Ork's infrastructural backbone [Pd-L2Ork](#) visual programming environment with its unique K-12 learning module has been utilized in dozens of K-12 Maker [workshops](#) and is currently used around the world by thousands of artists, designers, researchers, and educators.

<http://l2ork.music.vt.edu>

Ivica Ico Bukvic

The work of a transdisciplinary creative Dr. Ivica Ico Bukvic (b. 1976) is defined by the community building through creative enabling technologies and experiences. Bukvic's output encompasses aural, visual, acoustic, electronic, performances, installations, technologies, research publications, presentations, over \$1M in external grants, patent disclosures, and awards. He currently serves as the inaugural director of the Virginia Tech Creativity + Innovation (C+I) transdisciplinary community. ico.bukvic.net

ACKNOWLEDGEMENTS

This performance features several Linux Laptop Orchestra ([L2Ork](#)) performers and contributors to this particular iteration of the work. They are: Caleb Bittenbender, Kieran Casey, Jackson Famolari, Yangkai Lin, Jacob Smith, and Caden Vandervort.