



Digital Arts Plan

Researching the Plan

The Digital Arts Plan (DAP), was developed in conjunction with Waterlution's Digital Training & Discovery workshops. These workshops, funded through the stream 1 Digital Generator grant from the Canada Council for the Arts, focused on increasing staff and partners skills in arts-based digital delivery and developing artist project discoverability plans.

Through the skills training workshops, led by external experts Kim Kollier, Adrienne Wong and Suzanne Zandbergen, in partnership with the McMaster University School of the Arts, Factory Media Centre, Cotton Factory, and the Art Gallery of Hamilton, and with input from artist from the City of Hamilton, Six Nations of the Grand River, and Haldimand County, the DAP has come to focus on 3 primary goals: Improving capacity for digital art creation and production with a focus on collaboration and team productivity, and implementing activities related to a shared tool library.

This DAP has been developed in collaboration with Artistic Director Christopher McLeod and Freelance programmer/coder Alex MacLean, with review and input from Sue Roppel, SRMC Management Consulting.

The header features a blue-tinted photograph of water splashing, with the title text overlaid in white and blue.

Waterlution's Agenda 2030 Strategic Plan

The DAP directly supports the objectives and transformation set forth in Waterlution's Agenda 2030 ten-year strategic plan centered upon water and climate change initiatives in the arts-sector. Specifically falling within Waterlution's Arts Based Community Development work, the DAP also ties importantly to four of the seven new directions for the organization. These being: (i) a substantive deepening of arts-based, place-based experiences, (ii) new pathways for participants to continue their engagement, (iii) a world leading, online, modular curriculum, and, (iv) an interactive digital water learning journey (The World Water Journey).

More over the DAP would allow for Waterlution to realize its overall transformative approach captured as part of Agenda 2030, restated below:

One defining element of Waterlution is its approach toward water and its inclusion of artistic and creative practice as an essential element to our relationship with water and as a change agent for individual and collective appreciation of global water issues and needed stewardship responses. In addition, to its integrative presence through almost all programming aspects of Waterlution, Agenda 2030 includes new, arts-centric programming including: (i) commissioned community-art installations, (ii) short-programs delivered through online-digital platforms, (iii) integrated creative practice applied to water learning within schools, (iv) immersive artistic collaboration journeys complementing Water Innovation Labs, (v) pop-up events to stimulate water dialogue within communities, (vi) partner community changemaking activities to develop large-scale public water-security awareness raising, and (vii) large scale legacy commissions.(p.5)

About the Plan

Waterlution's Digital Art Plan includes and responds in part to the finding that "within Ontario there is no apparent digital focus for the arts sector, and that progress across Canada has been spotty." This from The Arts in a Digital World report prepared by Nordicity as commissioned by the Canada Council for the Arts. The updated report 2020, includes findings from Nesta's Digital Culture 2019 survey that found the largest barrier to adopting new digital technologies, processes, and projects within arts organizations in the UK was a lack of in-house staff time to both implement and understand how to use new digital technologies, processes, and projects.

Waterlution's Digital Art Plan will address the challenges of understanding and implementing digital technologies and processes within an arts-practice by focusing on the goals of; improving capacity for digital creation and production, evaluating collaboration processes and team productivity, and implementing activities related to a shared digital-arts tool library.

Improving capacity for digital creation & production

Develop and pilot a detailed Framework for understanding and implementing digital arts. The Framework will explain in detail 5 aspects of digital creation and production including; Interactive Sound, Augmented Reality, Creative Coding, and Machine Learning, and provide examples of how these technologies could be applied within an arts-practice.

01

Frame programmer and artists roles

- Project goals
- Mode of expression (Sound. AR. Other)
- Digital path (Existing. New. Self. Collaborator)
- Wire-frame ideas

02

Collaboration set-Up

- Creative / artistic expertise
- Digital expertise
- Knowledge needs (i.e. Indigenous knowledge, community members, etc.)
- Other

03 Mechanics

- Timeline
- Budget Determination and Financing
- Non-Financial Resources
- Technical Needs (Hardware. Software)

04 Project Development and Digital Prototyping

- Conceptual prototyping
- End-to-end testing
- Iterating
- Full-tech rehearsal / final test

05 Tech Readiness Assessment



Interactive Sound

Sound design with both software and hardware tools, craft soundscapes, sound effects, and/or music in-situ. Audio Editing.



Machine Learning

Engage (commission) certified machine learning engineer in the processes of ML modeling. Train and deploy machine engine.



Creative Coding

For generative works that require audio-reactive visuals, or digital art that links the audio with code. Developing code for data sonification. Developing digital audience interaction models.



Augmented Reality

Development and managing deployments of WebAR based projects. Full stack development with both frontend and backend development. Developing web experiences for components of the projects.

Project Example: Augmented Sound Walk

Here is an example process prepared as a prototype from Waterlution's Pervasive Media Workshop Series by Alex MacLean:

Assess the goals of the project I wanted to explore how sound could guide an AR experience. I didn't want to use a platform like Instagram or SnapChat to host the AR app so I decided it would be a WebAR experience. A theme about animals that have gone extinct due to climate change would be motivational. I have experience developing WebAR and working with sound, but the developing the 3D assets would be done in collaboration. An outdoor setting would be desirable, research question was whether different animations could be triggered based on location within an area such as a park. If location-based events would not be possible, then users could scan QR codes around the park to enable the different scenes.

Create a Timeline Prototype had to be ready and presentable within 4 weeks. Just enough to prove that the idea was possible and I was capable of executing it. All that would be required is to show that animations and audio could be triggered based on different locations within a gym-sized area.

Build a Prototype Test WebAR application with familiar tool: 8th Wall. Used before but not to the degree that would be required for this idea. Risk here because it might not be able to do what I want it to do. Tested location-based animations and audio and it worked. If it didn't, I would have had to reconsider the technology being used and possibly look for other options, or reconsider the goals of the project. Used free resources online for audio and animations. At this point these were used as placeholders. They would be built from scratch later on in the project once the prototype has been tested.

Break up the project into its components

Test the project end-to-end midway through the timeline

Iterate

Do a full tech rehearsal

Develop a backup plan



Evaluating Collaboration Processes and Team Productivity

Test and evaluate artist/programmer team digital communication methods and processes. Artist researchers to choose a team digital communication method including zoom, text, whatsapp, google drive, discord, etc. to be utilized and evaluated during the digital piloting phase. Evaluation will include communication mapping, interview, and written response questionnaires.

Test and evaluate shared digital library for Frameworks. Commission professional programmer/coder consultants in the wireframing and networking of a shared digital arts library. Consult artist researchers on library wireframing and key requirements.

Examine methods for building trust with the right partners in the arts/technology sectors. This includes working to demystify and de-jargon technology. Outline networking programs examined that could bring tech expertise into alignment with the arts-sector.

Implementing activities related to a shared digital arts tool library

The approaches and digital art tools (both software and hardware) developed for, and as a part of, the Framework for Understanding and Implementing Digital Arts, will be curated into an accessible shared digital arts resource library for artists and other creatives to use for new artwork creation.

Collaborate and connect with others through the prototyping of a new digital infrastructure, examine and test collaboration spaces that could bring together water and climate change connected artists with digital technology developers. Work to create arts productions that will deepen Waterlution's relationship with the public and engage new audiences, particularly youth focused (schools-aged and young professionals), so as to inspire stewardship, innovation and change-making to enhance global water security.

The new digital infrastructure will be integrated into Waterlution's interactive digital water learning journey, World Water Journey, by which water and climate change connected artists can showcase their artistic work, gaining vital visibility and ultimately new client bases for future commissioned work.



The Digital Arts Plan, premised on the new Framework for understanding and implementing Digital Arts, will enable Waterlution to develop and improve capacity for digital creation and production while evaluating collaborative processes through digital creation, and implement a shared digital-arts tool library. Waterlution will be strongly positioned to support the arts-sector with digital-art technologies and support artists in the development of core content. The new Framework will enrich and extend learning in its youth-targeted programming in schools, and become a ground source for new creative products both within and beyond Waterlution that will change the way in which the public comes to understand and interact with our natural world.

For any questions about this report, please contact:

Chris McLeod

Artistic Director

chris.mcleod@waterlution.org

Karen Kun

President

karen@waterlution.org