

## **Teaching & Learning Statement**

### Introduction

Teaching in the 21st century demands a totality of many simultaneous shifting experiential roles—from transmitting information from pure abstraction to guiding students as they navigate and synthesize the vast amounts of data available navigating in an AI curated ever changing complex world. My approach to teaching is rooted in fostering an environment where students and teachers collaboratively engage in a process of analytical critique, practical dialogue, inquiry through experimentation, and rigorous research leading to innovation. This perspective is inspired from my own educational trajectory, transitioning through stages of mentorship in analog/manual creation, digital generative making through coding, and currently leveraging AI tools in collaborative teaching.

Throughout the many technological historical phases I have experienced within the arts and culture pre internet and now web 2.0, my focus has remained on exposing students to new ideas with technology in the many existing contemporary art, design (architecture), and media arts research fields. While I expose my students as colleagues in a process that integrates history, studio practice, and theory as methods for problem-solving, this encapsulated strategy is created to adapt to uncertainty and to take a strong position in mastering the fundamentals found within the liberal arts, technology and the sciences. My intuition is leading me to inspire students to fearlessly familiarize and explore the edges of knowledge creation in the Arts to gain self empowering confidence moving forward. I emphasize research as a performative action—a means to embody knowledge through iterative problem-solving and creative flow. Teaching becomes a dynamic process of guiding students to filter, analyze, and synthesize information into actionable insights, transforming both their perspectives and my own as we learn together – a constant willingness to explore the world through applying a structured research methodology to create works.

My teaching philosophy is informed between the academy, nonprofit, and industry experiences. Whether in a classroom, studio, or other online learning environments, I view teaching as a collaborative process where students and educators engage in discourse to elevate all members in an interconnected group intelligence. In my decades within an RI research environment, I have engaged with many labs and research groups, a team learning methodology that is the most creatively liberating. I feel that my role is to contextualize problems while encouraging students to deconstruct them into manageable actionable steps, tailored to their curiosity and skill levels. This collaborative process mirrors my experiences working at the intersection of arts and sciences, where complex systems require analytical, creative, and/or usually unorthodox iterative solutions to see the entire spectrum of experimentation as an opportunity for discovery.

A methodology I have adopted involves demonstrating the iterative processes of gathering, cataloging, and synthesizing information into meaningful outcomes for students to be able to form new creative instincts guided by their own ambitions for artistic intellectual growth. For

example, my research in New Media Architectures (NMA) addresses problems found in complex systems through the lens of art and science. Sharing this approach allows students to engage with interdisciplinary methods that combine technical, theoretical, and creative perspectives. I also share my academic journey to reveal how each of our own individualized curiosities can lead to new inspiring ideas for learning and engaging existing cultural narratives and facts revealing new aesthetic experiences.

I encourage students to form a self evaluative process to measure their progress by having an open dialogue that initiates a continued capacity for accepting mentorship openly that aligns with their ever changing learning goals. For instance, in courses that involve creating digital spaces or media art installations, students document their iterative design processes and analyze their outcomes which include participating in group critiques, peer reviewing ideas, and creating research presentations. The sharing of conceptual frameworks through existing theoretical models of creation and production aid in their learning journey by having the ability to apply these insights to future challenges. The practices employed change depending on the project outcomes presented. I encourage an autodidact mindset to increase the quality of a shared learning experience while encouraging each student to follow their instincts. To that end, created a large repository of slides linking our weekly lecture topics for an a la carte self directed way of learning, inspired by a Public Television Model of presenting Arts, Current Events, History, and Science. Getting to know the students' inner creative world is another main objective in the educational journey and placing points of entry for artistic exploration is a part of my method of reaching as many of the students as I can.

Creating a safe and supportive learning environment is central to my teaching philosophy that facilitates a dynamic potential for growth. By integrating interdisciplinary research methods into the curriculum, I enable students to develop tangible outcomes that give opportunities to highlight innovative research contributions within existing assignments leading to individualized and/or group final projects. I encourage students to research existing global challenges and find a personal connection to proactively find community - fostering a sense of belonging through collaborative problem-solving by exploring the totality of artistic creation. My work with international organizations such as ACM SIGGRAPH, DigitalFUTURES, and Leonardo/ISAST has informed my ability to address a diversity of voices by listening to experiences in my research trajectory from all peoples throughout the world. I present opportunities to participate in exhibitions, panels, talks, and workshops, as part of my creative practice. A culturally responsive learning environment is a part of my teaching instinct rewarding learning experiences and how I want to share. I want to hear the students point of view and listen deeply to imagine how my work can reveal new improvised ways of group learning.

My teaching is deeply informed by my experiences working with the AlloSphere Research Group housed within the California NanoSystems Institute along with contributing to the international communities of ACM SIGGRAPH, Leonardo/ISAST, and DigitalFUTURES. For instance, the Synaptic Time Tunnel project at SIGGRAPH 2023 sponsored by AutoDesk in which I was a contributing member and helped secure the primary funding exemplifies my commitment to interdisciplinary real-world collaborative application, integrating academic, industry, and cultural perspectives. I contributed to the production and supported all efforts in completing the project, which

constituted a large team of diverse, united international university research groups and institutional coordination. Additionally, my work on the Sensorium installation for the Getty Foundation's Pacific Standard Time (PST Art) show focuses on creating an ecologically focused Immersive Virtual Environment (IVE) that was designed for the potential of being a foundational part of a larger curriculum trajectory to inspire continued research for analyzing observational climate change data. By understanding the limitations as opportunities of a design-engineering project, the construction of an interactive instrument from the architecture, hardware, and software engaging the larger TED Vancouver community is another opportunity to teach and discuss the nuances of the research. All of the IVE experiences helped our AlloSphere team members enter a larger discourse of the role of technology with all participants visiting our exhibitions to speculate on a great potential to inspire change from our government and industry leaders. These investments in artistic media experience research as prototypes inspire new views on existing knowledge investigating the potential of embodied languages of the senses. I continually share my research journey with my students whenever I can in my attempt to find common ground to grow and build trust.

I view Teaching as a continuous journey of discovery, shaped by the interplay of research pedagogy and studio/lab team practice. My academic journey began with a curiosity to explore technology through art and architectural design, evolving into a broader exploration of mediated materials as form, information from data, and shapes as space. This foundation informs my critical learning and thinking approach, emphasizing the integration of a combined philosophy of aesthetics, design, engineering, history, theory, and science. Students are encouraged to experiment with artistic concepts, computer languages, and digital frameworks to challenge existing expressive paradigms. I regularly reflect on improving my teaching practices through feedback from students, peers, and my own educational experiences. For example, in my recent work in my third year of co-creating a "Virtual Reality & Digital Spaces + Lab" course for Berkeley City College, I leveraged my online networks to reimagine contemporary educational assets and informational frameworks as part of a larger worldmaking paradigm for learning. This iterative process ensures that I continue to evolve an experimental creative process as an educator - practitioner.

This type of learning is inspired by the many disciplines that I have negotiated within the many different institutional spaces of higher learning I was exposed to. Having launched from my PhD and finding my community in conferences, exhibitions, jury/panels, and online peer reviewed events/talks – these experiences are what have grounded my work and how I encourage my students to engage the broader world with curiosity. Finding one's own inspiration in learning in my opinion is the basis of how to overcome the many unforeseen societal obstacles that exist by embodying interdisciplinary approaches for knowledge creation. My ambition is to continue advancing the conceptual framework of NMA as a field of practice, scaling it into a research movement addressing the many global challenges through the integration of a combined arts, design engineering, and science. This vision includes creating a comprehensive knowledge base, curricula, and collaborative networks that inspire students as well as colleagues to explore all existing boundaries by fostering curiosity, critical thinking, and collaborative engagement. I aim to meaningfully empower students with the tools for our current moment.