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Fostering A Community of Innovation at the Intersection of Art and Technology in the Pacific Northwest

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Abstract

The Pacific Northwest is a top region for innovators at the intersection of art and technology. This density of technology creatives – artists, programmers, technologists, designers, entrepreneurs – combined with the Pacific Northwest's uniquely community-oriented zeitgeist has had a meaningful impact on the local arts community, creating fertile ground for genres of interdisciplinary, technology-mediated art. In order to help foster this growing community of artists/technologists in pushing the bounds of what is possible in their work, we organized a workshop bringing together key stakeholders in the region. The workshop was structured as a focus group including a brief questionnaire to generate feedback for how to best support this community. The unique concerns and collective agenda of this interdisciplinary group are discussed as they would apply to broader contexts.

Keywords

Community development, community of practice, art and technology, new media art, focus group, interdisciplinary collaboration

Introduction

In the past decade, a growing, integrative genre of art has been taking root in the Pacific Northwest of the United States. In an area dominated by a thriving technology industry – including software giants such as Microsoft, Xbox, Amazon, and Adobe, and a very active startup culture – so too has the local arts culture become increasingly infused with technology as a medium for creative expression. These works often exceed the bounds of traditional exhibition spaces and thwart gallery space business models. Due to the affordances of the medium to sense people and respond, they also tend to be interactive and participatory with special space and maintenance requirements. Given the specialized skills typically required to implement these works, some of the most inspiring pieces tend to be interdisciplinary with hybrid collaborators including scientists, technologists, designers, and more traditional artists. Their interdisciplinary nature further points to the importance of developing a welcoming community of practice, where innovators may find each other, develop trust, collaborate, and through open sharing accelerate innovation.

Although there are a number of organizations and individuals practicing at this intersection of art, design, and technology in the Pacific Northwest, we see a need for more cross-organizational awareness and communication in order to nurture a thriving community of practice that works effectively together to achieve its goals. To help foster this growing community of artists and technologists, we organized a workshop bringing together key stakeholders in the region to map out the space, discuss a collective agenda as a community, and spark next steps for actively achieving these goals.

In this paper we:

1) Map out the community, defining its special characteristics.
2) Articulate and prioritize the community's common goals.
3) Propose a series of activities (e.g., knowledge sharing, events, and communication vehicles) as next steps toward fostering this and similar communities.

Definition & Historical Context

"Technology (from Greek τέχνη, techne, "art, skill, cunning of hand"; and -λογία, -logia[1]) refer to the collection of tools, including machinery, modifications, arrangements and procedures used by humans." — Wikipedia

Art and design are at the very root of technology. This paper is specifically looking at the forms of art that embrace the emerging technologies that open up new domains of artistic expression. Artists, designers and hybrid creatives that explore the immanent qualities of these many new technologies disrupt accepted conventions in order to forge a new language of creativity.

The exploration of modern technology for art has roots as early as the 1960's, when a group of avant-garde artists embarked on a series of collaborations with electrical engineers at Bell Telephone Laboratories (Bell Labs), known as Experiments in Art and Technology (E.A.T.). These performative experiments exploring emerging technologies for making art were considered the forerunners to current technological art collaborations.

"The 9 Evenings artists and engineers came from collaborative experimental subcultures with similar values and practices. These included open, egalitarian approaches to experimentation; discipline boundary-

crossing and respect for diversity; concern about technology as both a tool and a sociopolitical and cultural phenomenon; and a process-based approach to creative production influenced by new ideas that included cybernetics theory of man/machine communication systems." (Oppenheimer, 2013)

In the next wave of art/technology collaborations, technologists started actively developing creative tools in collaboration with artists. For example, Kenneth Knowlton, while at Bell Labs, wrote BEFLIX, a program developed for animation. More recently, Casey Reas and Ben Fry developed Processing, a programming language currently driving much of the computer-mediated visuals and data visualizations in the arts.

Concurrently, there was a rich precedence of art playing an important role in the technology innovation research process. Nam Jun Paik was interfering with electronics and pioneering video art and installations in the 1960's. The Xerox Palo Alto Research Center's Artist-in-Residence program (PAIR) was started in the early 1990's and continues to be an on-going research effort at Xerox Palo Alto Research Center. The program pairs artists and designers with research scientists and engineers who use similar media technology as a common language to push artistic and scientific innovation. More recently, the creation of the Internet provided another space for creative technological collaboration. Pioneers using the Internet include Roy Ascott's telematic art events linking artists and engineers around the world. Western Front, Vancouver and Pittsburgh's DAX group in the 1990s pioneered real-time global art events.

The range of artistic activity engaged with these distribution and experiential spaces transcend traditional artistic practices through the birth of new hybrid forms of technology creatives. Artist/programmer, designer/scientist, artist/filmmaker, social networker/artist, engineer/artist are hybrid creative identities that blur the boundaries between art and science and the ways in which art may be enmeshed within our culture. Mapping the community of current artistic collaborations between art and technology would include domains as diverse as social networking, bio systems, gaming, programming, film, media, apparel, mobile media, robotics, sound design, mediated performance, information science, data visualization, education, and government. Modern distribution opportunities continue to expand the impact of these works, including screen technologies (tablets, phones, computers, televisions, digital signage) and mass-produced objects.

Although we have observed a growing presence of these technology creatives in the Pacific Northwest, the question remains; who are the people and places that are engaged in this activity? How can the community be evolved in order to stimulate more activity and opportunity?

Why the Pacific Northwest

Seattle has long been heralded as *"the city the future"* (McGinn, 2012), and the Pacific Northwest has been at the center of the explosion of the new digital economy. Many of the technologies that drive the digital economy were developed in this area and have attracted technologists to the region from around the globe, including ecommerce and new media distributions such as Microsoft and Amazon. Due to this vibrant creative technology economy, in 2012 Seattle was rated #1 city for technology jobs by Forbes (Kotkin, 2012). Similarly, a report by Enterprise Seattle ranked the city as #6 in Interactive Media based on the concentration of those employed by the interactive games industry (Mefford, 2012).

"The Interactive Media industry is a high tech industry that blends art and technology for both entertainment and more serious or practical applications. The core of the industry is the development of digital content, driven by talented individuals with expertise in software and artistic development, including computer game enthusiasts." – Enterprise Seattle Interactive Media Industry Assessment, May 2012 (Prepared by CAI Community Attributes Inc., Commissioned by Enterprise Seattle)

As they further note, throughout their interviews, an important theme affecting growth in the Pacific Northwest is *"the quality of life and amenities that align with the Interactive Media workforce demographic."* (p. 31).

Alongside the commercial and industrial evolution of the region, there is a growing integrative genre of arts, design and technology.

"Today, Seattle's creative vitality is nearly three times the national average—among the highest in the nation. The arts not only inspire and fuel discovery – they improve our quality of life, create jobs, help attract and retain business, make our city a major destination for tourists and play an important role in the economic revitalization of our community." – Mike McGinn Arts and Economic Prosperity Report, 2012

In June of 2012, the Americans for the Arts, a national nonprofit arts advocacy group, released the most comprehensive economic impact study of the nonprofit arts and culture industry ever conducted in the United States (Arts and Economic Prosperity Report IV, 2012). According to their report Seattle has seen $447.6 million in annual economic activity from the nonprofit arts and culture industry, with 10,807 full-time equivalent jobs – almost three times that of similarly sized cities. As of January 2011, Seattle, WA is home to 4,571 arts-related businesses that employ 20,616 people. The confluence of thriving arts and technology communities in the Northwest has created a fertile ground for inspiring arts/tech collaborations.

A Community with an Innovation Culture

As we discuss how to foster a thriving community of practice at the intersection of art and technology, we may draw inspiration from past work (Wenger, 2000). To start, it has been well-established that conversation is the main activity

of any thriving community. While we need regulars to provide stability and historical knowledge, the conversation must be open and welcoming to all participants (Oldenburg, 1989). Members of an effective community can articulate their common goals, and the steps they are taking to accomplish them. In a thriving community people know each other and regularly interact with each other. We cannot emphasize enough the importance of helping people develop trusting relationships, where they have a feeling of identity and belonging toward the community and are willing to contribute time and energy toward these common goals. People develop these relationships not only through their collaborations, but also by having fun together.

As a community of practice, it is also important to develop a shared understanding of best practices within the field, and host repositories of knowledge and shared artefacts. When seeking to foster a culture of innovation, it is important to expect and reward change, to foster an openness to new ideas across social hierarchies, and to collaborate across organizations and disciplines (Bryant, 2014).

In organizing this workshop, we very much embraced these principles, seeking to include a diversity of voices, across roles and organizations. For example, in developing the workshop agenda and facilitating the workshop conversation, we welcomed the contributions and emerging leadership of any individual or organization in the space. We also sought to provide increased opportunities for conversation and to infuse that sense of play, by wrapping up the workshop with an art show.

Workshop

Broadly speaking, the goal of the workshop was to bring together diverse stakeholders in the ecosystem of the arts and technology worlds to discuss how to foster a community of innovators, increasing awareness, collaboration, and collective efficacy toward common goals. More specifically, the workshop agenda was to map out the space, identify core goals of the community, and develop concrete next steps toward fostering these goals. The workshop was structured as a four hour focus group including a) a brief questionnaire to generate individual feedback for how we should best support this community, b) introductions where participants described their own activities in the space and their own goals, c) breakout brainstorming discussions around emergent themes, and d) a discussion of concrete next steps. See Figure 1.

Workshop Participants

Participants were invited through two phases. We first generated a list of potential attendees known to the organizers who would reflect a diversity of roles and organizations in the community. In the process of inviting participants we asked whom else they believed should be attending. Names frequently mentioned or identified by community leaders were then invited in the second round of invitations.

Figure 1. The workshop was optimized for conversation.

41 people attended the workshop, 23 female, 18 male. Participants were asked to categorize themselves in the questionnaires in terms of what primary roles they play in the arts and technology community. Figure 2 below illustrates the breakdown of innovators (67%), educators (52%), advocates (50%), researchers (45%), organizers (30%), writers (30%) and curators (28%).

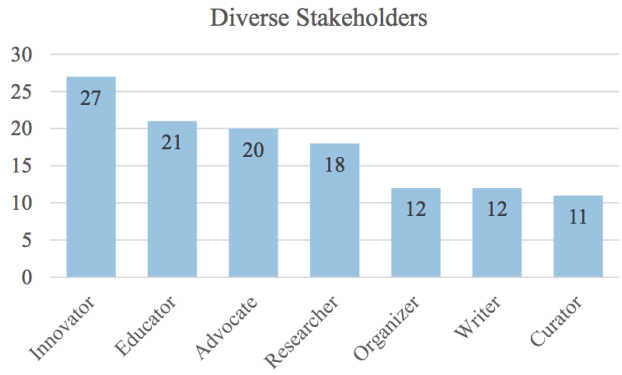

Figure 2. Participants represented a diversity of roles.

The term "innovator" was used to encompass artists and technologists who created new works. We further asked innovators to identify themselves according to following categories: artist, technologist, designer, maker, hacker or entrepreneur. Figure 3 shows the breakdown of innovators. It should be noted that many of the individuals in the room wore multiple hats, reflecting the interdisciplinary nature of the community even at the individual level – artists who were also entrepreneurs, hackers who were educators, and community organizers who were also designers.

"We had become interested in the process we were involved in, which was the meeting, marrying, and mating of artists and scientists that was a kind of coupling, some form of, hopefully, a synergistic new wrinkle in artistic thought and scientific thought. That they would repel each other, and attract each other in some strange

dance, and we would get out of that the flowering, the explosion, the evolution of something for the future." (Steve Paxton, Open Score - 9 Evenings film by E.A.T., 1966/1997; from Oppenheimer, 2012)

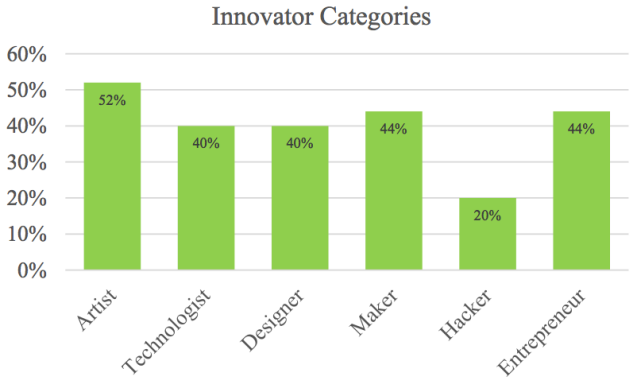

Figure 3. Attendees included many types of innovators.

Mapping the Community

A key goal of the workshop was to map out who were the organizations and people actively engaged at the intersection of art and technology. Through the process of generating the participant invitation list we first developed an initial list of categories, and then populated the list with prominent exemplars in each category. At the workshop, we asked our participants to further indicate those organizations, individuals, news sources, and so forth, that they keep track of or are most representative or influential in the arts/tech community.

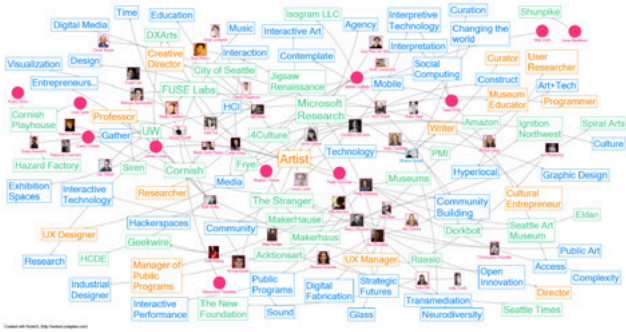

Figure 4. Network map of workshop invitees, with their roles (orange), interests (blue), and organizations (green)

Across categories of educational groups, exhibitions spaces, maker spaces, companies, and social groups, we found there are few organizations devoted specifically to the arts and technology space. Rather, they tend to be only partially involved or have overlapping interests with the arts and technology space. For example, while exhibition spaces like the Henry Art Museum have art shows with technology-oriented art, not all of their exhibitions are focused on this area. The exception to this is in the maker spaces, which tend to be focused specifically on supporting technology as a creative medium. We similarly did not find that participants acquired information about activities at the intersection of art and technology from any one unified source.

When we asked participants to indicate how they kept up to date with information and events about the arts and technology community, they reported largely relying on social media and mailing lists. Few mentioned more traditional news sources. See Figure 5.

Facebook/Facebook Groups (9), group/organizational mailing list (8), Twitter (7), Wired(3), Internet(2), Rhizome(2), LinkedIn (1), email (1), ars electronica (1), NYTimes (1), Geekwire (1), The Verge(1), FastCompany(1), Skype (1), ITP (1), Omnivours (1), Leonardo(1), Word of Mouth (1), Stranger(1), Makerhaus(1), Zero1 (1), Blogs(1), Gizmodo(1), Engadget(1), Create Digital Music(1), Meetup(1).

Figure 5. How people keep up-to-date.

We asked the innovators a few questions to test our assumptions about the nature of their work. When we asked how they used technology as a creative medium, there were a wide variety of responses, with programming, physical computing, design, and rich media being the most prominent categories. See Figure 6.

Programming (10), Microcontrollers/Arduino(3), electronics(3), graphic design(3), fabrication (2), dance(2), Kinect(1), computer science (1), 3D imaging, digital mapping (1), response technology (1), math(1), logic(1), code(1), sensors(1), cameras(1), rapid prototyping tools(1), film(2), choreography(1) lighting(1), sound/music (1), Photo/video editing(1), metal work(1), word working(1), processing(1), openFrameworks(1), social media(1), CAD digital fabrication(1), visualization(1), web/app(1), Robotics(1).

Figure 6. Uses of technology as a creative medium.

We observed a dichotomy in how the innovators employed technology in their art. Many perceived their use of technology simply as a tool or means to an end.

> *"I use technology full stop. It is the set of tools I use to do what I do, it is the means not the end."*
> *"I use digital tech in my artwork whenever I need it to achieve my goals, for interactivity...also use those tools in creation of animation"*

Whereas for others, technology was an important theme integrated into their work.

> *"I use technology to enhance the way humans sense the world and to explore the intersection of the physical and digital worlds"*
> *"[technology is] "Instrinsic to the platform of the art"*

As expected, the majority (56%) of innovators reported all of their projects were collaborative, with another 38% reporting they had both solitary and collaborative projects. Only one person reported that her creative projects were only solitary. Collaborative projects ranged in size from 2 to 50 collaborators, with most being in the 3-5 person range. We also found that when people reported their projects were collaborative, they often sought out people with different skills as collaborators. Many of these cross-disciplinary collaborations combined technological skills such as programming or CAD fabrication, with more traditional artistic skills such as dance or design.

In terms of work spaces, people reported using a mix of their own studios, maker spaces, work sites, and online spaces.

> *"living room, backyard, café, bars, labs, maker spaces, Cornish residency"*

When seeking to learn skills, people reported a mix of a) finding information online, through search, Wikipedia, Youtube tutorials, and technology forums, b) through local universities, c) through the maker spaces, and d) by seeking people in their personal networks who have the desired knowledge and skill.

As illustrated by these survey responses, the innovators in this community actively used technology as a creative medium, sought out cross-disciplinary collaborators as a part of their work, worked together through a mix of personal and shared spaces, and engaged with ongoing learning around specialized skills through online resources, educational resources, and their personal networks.

Collective Goals

Perhaps the most important agenda for the workshop was to articulate the shared collective goals of this community of people at the intersection of art and technology. As organizers we had developed a preliminary list to inspire discussion, but also asked participants to describe their own agenda and what they hoped we might achieve. To start the conversation, we asked participants in our survey to rate the importance of possible goals.

As can be seen from Figure 8, most of the goals were rated fairly highly, with more diversity in perspectives, across gender, race, and socio-economic status, being rated the most highly. Following this, the desire for more exhibition spaces, increased educational opportunities, an improved sense of community and social support, fundraising opportunities, access to collaboration spaces, access to specialized tools and machinery, and better promotion of arts/tech related activities were all rated as equally important. Less important were networking events, an online directory of artists, or better collaboration tools.

In the second phase of the workshop, we reviewed people's introductions and their stated interests, and then we broke apart into four discussion groups around the four most prominent themes in the discussion: diversity, education, bridging communities, and the underlying philosophical perspective of technology as a medium of art. Further discussion of these and other emergent themes are below.

More Diversity

Given the specialized skills, educational resources, and funds required for works using technology as a creative medium, the population of those active in this space tends to be higher in socio-economic status. Furthermore, given the gender discrepancy of those in the technology industry, it also trends towards being more male. For those at the workshop, this was a great cause for concern. One element of low diversity is the perception in disadvantaged groups that this genre of art may not be for them, and a key issue is how to increase individual agency to leverage the resources available. In the discussion, attendees suggest a number of approaches to increasing the community's diversity, including a) mentorship programs between novices

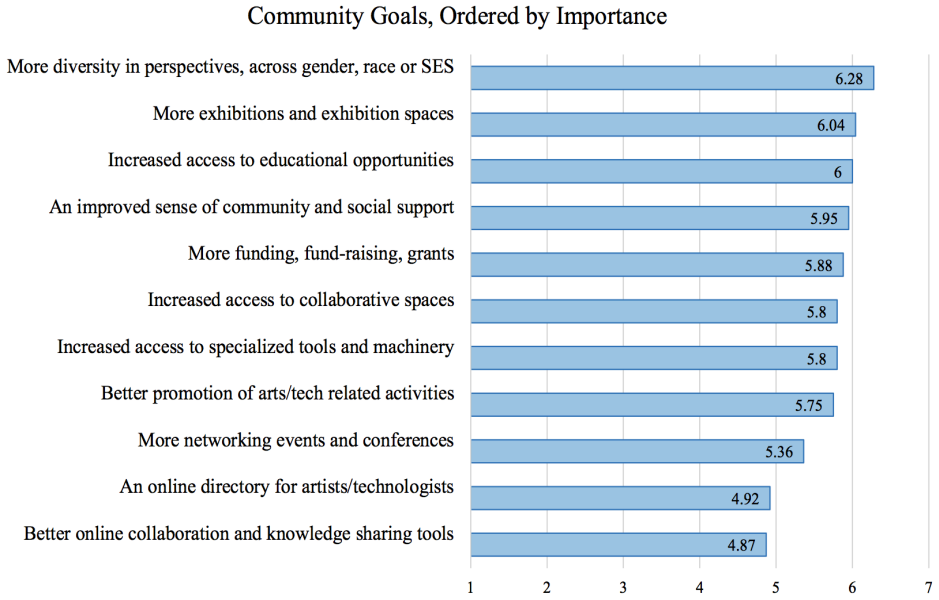

Figure 8. Average ratings of community goals

and experts, b) a sharing platform for sharing resources, c) educational programs such as ArtsCare and ReelGrrls, and d) increasing the prominence of role models in news and social media.

More Exhibition Space

> *"Consistent exhibition opportunities that are healthy in traffic online and in real time".*

Although the Pacific Northwest has a thriving technology industry, there are no dedicated places for exhibition of works at the intersection of art and technology. Participants agreed there is a potentially vast, virtually untapped market of patrons and buyers for interdisciplinary tech and art that needs to be engaged if we hope to finance growth in this field. The biggest issue with those spaces seemed to be a lack of sustainability. It is a major cost to our city if creative entrepreneurs spend years and thousands if not millions of dollars on under-supported ventures. So, as we look to encourage local artists we must also look to those space makers to learn from their experiences and improve access to financial supporters, community resources, and possibly more adaptive business models.

Workshop artists also expressed that they wanted accessible space that comes well-promoted to an audience who will show up and interact with the work, plus a robust online platform to share the work beyond our local market. One unique aspect of the technological art space is that it must extend gracefully into the ether. As such, ideal spaces need to be connected, and relevant to a wider audience.

Increased Access to Education and Makerspaces

> *"Education, diversity, and access are the biggest holes. Most of this has to do with affordability, and perhaps cultural exclusivity."*
> *"Education: more context for teaching/mentoring youth by art/tech professionals."*

Access to life-long educational opportunities emerged as important due to the ongoing need to maintain and learn new skills as new technologies evolve. There are many educational opportunities in the Pacific Northwest that include traditional educational institutions, online tutorials and courses, Meetups, conferences and events, as well other networking opportunities. Groups such as Dorkbot and the Seattle Robotics Society are largely structured around providing peer learning opportunities. That said, in the past decade makerspaces or hackerspaces have emerged as important community centers, with tools for turning data into 2D and 3D objects. They provide valuable resources for artists, designers, engineers and educators, including life-long learning opportunities. Educational institutions that do not have adequate funding or resources can use these types of public technology spaces to enhance and facilitate technology-focused art programs. Students can develop concepts and final designs in a classroom setting and cost effectively outsource the production. This coordination between institutional education and non-institutional production is becoming a model of technology education in the future.

Access to free or inexpensive education is also important because differential access to education decreases the diversity of the community. Although we are increasingly in a world where people may learn many new skills online – particularly skills around technology – many are not aware of said opportunities or do not feel empowered to seek them out. The success of maker spaces further illustrate the limitations of online learning, given the importance of hands-on access to specialized machinery and related skills training. Independent artists and designers often cobble together various combinations of resources to produce their projects. Complex projects may involve several types of expertise from quite different disciplines, and embedding projects in shared makerspaces provides serendipitous access to such cross-disciplinary knowledge.

Social Impact

An important emergent theme of the workshop was how should we use art as a tool for social impact – that is, not just as a vehicle for aesthetics and communication, but also for helping the world be a better place. To the extent that art can be perceived as shaping the nature of cultural conversations, how can it be used to impact culture, particularly given the affordances of technology-mediated art to reach broader audiences. This issue is related to that of diversity, in that if technology is being used as a means for artists to have a voice in shaping cultural change, it is important that a diversity of voices be participating in that conversation.

Bridging Communities

> *"Better bridging/defining of what is art to tech community"*

As illustrated by the number of groups and individuals engaged in this space, in one sense the Pacific Northwest already has a thriving arts and technology community. That said, there is no clear name for the community, no clear home or hub online, no one central place for people to convene, and no one communication channel for them to subscribe to. Because the community is inherently interdisciplinary, there will always remain the need for different organizations and individuals to support the specialized concerns of their constituents. For example, the Seattle Robotics Society and DXARTS at the University of Washington, while having some overlap in their missions and their people, also serve very distinct purposes. Consequently, an important theme that emerged from the workshop is the need to adopt more of a coalition model as we consider how to foster a growing interdisciplinary community – that is, we should work to build bridges across diverse communities around the common interest of innovating at the intersection of art and technology, rather than trying to

merge them. One such coalition approach, for example, might be to work together to host an event specifically designed to connect people from different disciplines or groups. Similarly, we might work together to more effectively help people find collaborators through online tools.

> *"Art and technology hackathon, w/peer mentoring, matching artists with engineer/ designer".*
> *"An easier way to discover compatible individuals and new projects/technologies".*

Financing Technology-based Art

> *"We have an Arts Incubation series for helping to generate new ideas but are very limited in terms of our digital technologies resources. So the best would be funding access to technology for artists to experiment."*
> *"A critical understanding of how to develop, market, and commerce relate to art based on technology".*

Traditional business models for gallery art do not easily apply to technology-based art. That is, consumers of such art are rarely in the position to purchase it for personal display at home, either because it would be too expensive considering the cost of actually implementing it, the art is too large, it is too ephemeral, or it is not sufficiently tangible. Given the high wage to be earned in the technology industry by those with specialized technology skills, few technology artists actually make a living from their art, but rather use their work wages to personally fund their art. Thus, when asking our workshop participants what resources they needed to reach their full potential in their creative projects "more time" was frequently mentioned.

Philosophical Substrate and Critical Voice

> *"Dedicated art/tech critic in the city".*
> *"The role of art as a form of research/interrogation as it relates to envisioning technology and how we understand our lives, and the ways in which we (as a community) can work together to intensify and externalize the A/T conversation, helping it feel relevant and accessible to no-traditional/non-"art" audiences."*

Whether technology is perceived as simply a tool for creative expression, or as an object of the conversation itself, the issue of how this community stands relative to other genres of art is an important one. It is only through a shared understanding of technology-based art as a genre that we may also develop a critical voice for identifying and promoting standards of excellence in the domain. However, while the term "technology-based art" brings to mind specific creative tools and artefacts such as programming languages, digital media, and electronics – the word technology itself is somewhat conflated with the meaning of word art. As noted by participants in the workshop, the meaning of the word technology is rooted in the greek word, tekhnologia merging art and skill.

> *"Technology, like art, is a soaring exercise of the human imagination. Art is the aesthetic ordering of experience to express meanings in symbolic terms, and the reordering of nature—the qualities of space and time—in new perceptual and material form. Art is an end in itself; its values are intrinsic. Technology is the instrumental ordering of human experience within a logic of efficient means, and the direction of nature to use its powers for material gain. But art and technology are not separate realms walled off from each other. Art employs techne, but for its own ends. Techne, too, is a form of art that bridges culture and social structure, and in the process reshapes both." -- Daniel Bell, "Technology, Nature, and Society," The Winding Passage, Abt Books (1980).*

How then, do we best argue that technology is a medium of art, a category in its own right equivalent to "visual art", "theatre", or "dance", or "music", which as a discipline should evolve its own best practices, and develop its own critical voice for excellence? Moreover, how can we blur the lines between technological envisioning and art (which relies heavily on design and other activities leveraging creative voice), in order to illuminate alternative, generative pathways for the creation of the technologies that will shape our lives in the future. Essentially, how can we embed artists into the technology process as an important means of discovery and innovation.

Next Steps: Community Building Activities

Having mapped the space and community goals, the next step for the workshop was to discuss concrete next steps toward achieving these goals, which fell into three main categories: documentation, communication, and events. In line with the "coalition model", we believe different people and organizations must take leadership, no one organization can complete the whole list of activities.

Documentation and Sharing

How do we develop a central repository for documenting who's who (organizations, projects, and people), best practices, knowledge sharing, digital assets, and so forth? The obvious solution to this is some form of website and/or social graph, but who should host this web site, and who would fund it? These questions require further conversation, however in the short term, we decided to create this summary report to share lessons learned, and have started exploring developing a social graph including individuals and organizations in this community.

Communication and Collaboration Channels

As discussed earlier, a primary requirement of any thriving community is an ongoing communication channel. To fa-

cilitate ongoing conversation and community updates, it is important to leverage existing communication channels, such as mailing lists, Twitter, and Facebook. For example, to help us more easily find each other on Twitter, we decided upon the"#ArtsTechNW" hashtag and created a related @artstechnw account.

Community Building Events

Events undoubtedly have a substantial impact in fostering a thriving community. The best mix includes a large number of intimate opportunities for individuals with specific commonalities to convene, with a few larger shows and parties to bring together the wider communities. In addition to producing our own events, however, it is most important to suffuse larger culture-building events with the thinkers and artists who represent the community and to assist in the promotion and attendance of those instances. One project we considered undertaking as a community would be to increase the technology/ interdisciplinary art presence at relevant local festivals and as programming at a range of venues. A consortium of art and technology organizations could coordinate speakers and shows featuring local innovators and visiting luminaries by noticing opportunities that already exist in our market. This kind of integration helps us build bridges into the larger cultural landscape while providing a new audience and potential resource pool to our members.

Another approach to is use regular meetups as a platform for investigating collaboration and experimentation in the arts, technology and design. For example, as a followup to our workshop, a group called ArtsTechSea will be organizing educational programs and social/networking events for individuals working at the intersection of art and tech to share ideas, strategies, successes, challenges and failures.

Coalition

Seattle has a strong creative community. However, in order to truly maximize the individual contributions of institutions, organizations, creative professionals, makerspaces, non-profits and individual agents-provocateurs, and take their work to the next level, the need for an interdisciplinary art and technology coalition arises. Through a coalition members from diverse groups and backgrounds may meet at regular intervals to share their work, calendar, methodologies and visions, with the ultimate goal of creating cross-institutional, cross-community work that leverages and expands on current assets towards the creation of a truly vibrant, globally relevant, creative culture.

Synthesis

In organizing the workshop, our goal was to bring people together to map out the community, clarify common goals, and initiate concrete next steps toward achieving these goals. Coming out of the workshop, we found our goals had broadened considerably relative to going in. Given the excitement of the people in the room and the expressed need for this community to grow, we elevated the conversation in how we define innovation to take leadership in community building and risk taking. As suggested by one of our participants, we decided to embrace *"Let's be dangerous thinkers"* as the motto. Creating an environment for interdisciplinary arts and technology collaboration requires special efforts in community organizing, including creating tools for knowledge repositories, leveraging social media, and organizing cross-organizational events. By sharing lessons learned we hope to support other community organizers with similar ambitions.

Acknowledgements

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References

1. Americans for the Arts. 2012. "Arts and Economic Prosperity IV: In the City of Seattle, WA." *A Report of Americans for the Arts.* http://www.seattle.gov/arts/_downloads/research/WA_CityOfSeattle_AEP4_FinalReport-Local.pdf
2. Bryant, Adam. 2014. *Quick and Nimble*. Times Books.
3. Farnham, Shelly, and Tremblay, Genevieve. 2009. *Questionnaire Study of Technology Creatives in the Pacific Northwest.*
4. Kotkin, Joel. 2012. "The Best Cities for Tech Jobs". *Forbes.* http://www.forbes.com/sites/ joelkotkin/2012/05/17/the-best-cities-for-tech-jobs/
5. McGinn, Mike. 2012. "Seattle Mayor Mike McGinn: We Are The City of the Future." Presentation at Ignite Seattle, 2012. http://www.geekwire.com/2012/mayor-mike-mcginn-ignite-talk/
6. Mefford, Chris, Couch, Dawn, and Forsyth, Michael. 2010. "Interactive Media Competitiveness Study." *A Washington Interactive Network and Enterprise Seattle report, prepared by Community Attributes, Inc.* http://www.seakingwdc.org/pdf/other-reports/IMCompetivinessStudyJan2010_ Final%20(2).pdf
7. Mefford, Chris. 2012. "Interactive Media Industry Assessment." *An Enterprise Seattle report, prepared by Community Attributes, Inc.* http://edc-seaking.org/wp-content/uploads/2012/01/IM- Industr y-Assessment-2012-Final.pdf
8. Oldenberg, Ray. 1989. *The Great Good Place*. New York: Paragon Books.
9. Oppenheimer, Robin. 2012. *Dissertation: The Strange Dance: 9 Evenings: Theater & Engineering As Creative Collaboration.*
10. Wegner, Etienne. 2000. *Communities of Practice: Learning, Meaning and Identity.* Cambridge University Press.