EMILY CARR
UNIVERSITY
OF ART + DESIGN

CRC and CFI
Strategic Research Plan
2013-2019

OBJECTIVES

The Emily Carr University Strategic Research Plan provides a framework for the growth and development of an increasingly rich array of faculty and student driven research at Emily Carr. It is vital to our continued development to understand where we are: what kind of research we have undertaken, what has motivated us, how we want our research to be perceived and understood, and in which areas we feel we can have the most impact. This plan identifies the energy and momentum already present in our community and contextualizes it within our history and our aspirations for the future. On a practical level this plan will guide policy, infrastructure, and resource allocation. This document was drafted in 2013 and in December 2018, the Academic Senate voted to extend to 2019.By articulating our goals in concrete terms, we can set priorities and direction, while remaining open to new opportunities and emergent areas of research inquiry and practice.

This document describes the background and context of research at Emily Carr, and the principles at the heart of our work. It then lists the broad themes around which the major research areas and clusters are organized. These research themes are indicative of our core strengths and long-term goals and are resilient to changes in the research landscape. Throughout, we articulate these themes with concrete examples from our current work. These examples also illustrate the ways in which the research ecology of Emily Carr differs from that of a larger, comprehensive research University. At their core, Art and Design institutions focus on practices and processes of *making,* and on a reflexive orientation to making and material culture. Praxis, or critical making, the joining of making and theory, forms the basis of our research and educational practice. All Universities seek to understand the world to satisfy curiosity and to live better. Art and Design methods are intimately connected to the relational dynamics between individual, community, land, economy, and politics. They are invested in the dialogue between ideas and community, deriving from a phenomenological perspective that starts from noticing what is, to then use the inherent energy of that relation to understand and effect change.

The outcomes of our research activities are diverse, both in form and impact. Our research manifests in writing, theory, designs, films, objects, processes, art exhibitions, performances, public talks, public art, and projects and programs for social change and social enterprise. All of these are embedded in a dynamic conversation with receptor communities, driving the next steps, creating new knowledge in the process. Our Faculty and Students have been consistently successful in peer-reviewed publishing contexts including journals, conferences, and exhibitions.

CONTEXT OF RESEARCH AT EMILY CARR

The recognition of and investment in research in Art and Design has grown steadily with the emergence of digital media, and the ensuing revolutions in the organization of work, economies, and everyday life. Today Art and Design institutions actively participate in knowledge creation and innovation alongside institutions of Sciences and Humanities. In 2007, Emily Carr opened the Intersections Digital Studios, a CFI-supported research facility that enabled the development of significant research capacity and provided a focal point for the support of research activities at Emily Carr. In the same year, a new Master of Applied Arts program was launched and welcomed its first class. Over the past five years, we have developed additional graduate programs, including a Low Residency Master of Applied Arts (2010), and a Master of Design (2013). The total number of resident graduate students varies between 25-40, with an additional 30 students in Low Residency. We are planning to implement Master of Fine Arts (MFA) programs and create more links between our graduate program and the institutionally shared Masters of Digital Media (MDM) program at the Great Northern Way campus. We expect to double the number of graduate students at Emily Carr by 2020.

We also involve our undergraduate students in research activity through course-based partnered research, and research assistantships. We integrate deep investigation and practical knowledge over 3-4 years of their education, helping build an understanding of research in art and design, and providing continuity for our research projects and programs. We are committed to giving all our students an opportunity for enquiry-based learning and the creation of new knowledge.

From the beginning, and with an intensified commitment in the last 6 years, Emily Carr has created unique opportunities for learning and community engagement not only for our degree students but also for the public at large. We have an active Speaker Series, an artist-in-residence program, and a well-known and progressive Continuing Studies program. We have organized and hosted many symposia and conferences, including recently hosting the European League of Institutes of Art (ELIA) and the Association of Independent Colleges of Art and Design (AICAD) annual conferences, both of which established an international platform for addressing research in art and design ranging from topics of methodology, ethics, practice, and assessment. All Faculties along with the Continuing Studies Department are instrumental to creating dialogue with our local and global communities.

The planned move of Emily Carr to a new purpose-built campus in 2016 provides a key horizon for the 2013-2019 research plan. As we prepare for this move we are imagining a new physical space and re-imagining the ways we teach, and stay connected and responsible to our community and environment. One of the many advantages of moving onto the Great Northern Way (GNW) campus is that it is shared with other Universities, commercial enterprises, and cultural, public, living spaces. The vision for the campus includes the emerging vision for the existing Centre for Digital Media adjacent to the planned Emily Carr buildings. The Academic Committee for GNW is developing next phase plans for the Masters of Digital Media (MDM) program and the Centre for Digital Media, that incorporate the Emily Carr relocation, and the development of a campus that houses the MDM program, industry partners, art galleries, fabrication shops, student residences, and studio spaces.

Because we are a specialized University, forming research and pedagogical links with other Universities increases our capacity to address problems from a multi-disciplinary perspective. We already have close ties with Simon Fraser University (SFU) and UBC through personal and collaborative relationships between our Faculties. In particular, SFU's School of Interactive Arts (SIAT) and UBC's Department of Curriculum & Pedagogy (EDCP), and Institute for Computing, Information and Cognitive Systems (ICICS) have been strong allies. We have also begun a project that brings together three of the major Art and Design institutions in Canada (Emily Carr, OCADU, and NSCADU) within the GRAND NCE research network. These and other projects demonstrate the unique capacity of Art + Design institutions to develop sustainable models for collaborative research.

SUPPORT FOR RESEARCH

Emily Carr is committed to the growth and support of the research undertaken by our Faculty and Students. The Intersections Digital Studios are the most visible connection to research support, housing technology and meeting spaces. The Office of Research supports project development, grant writing, grant administration, internships, and partnership development. Faculty who are successful at obtaining tri-council funding for a project, are eligible for course releases in proportion to the size and duration of the grant. The President's Research Fund seeds faculty and students project development, and supports production and dissemination of results.

Both Federal and Provincial governments have contributed to the technological and building infrastructure for research at Emily Carr. The Intersections Digital Studios were built through an initial investment by the Canadian Foundation for Innovation (CFI), Western Economic Diversification (WED), the BC Knowledge Development Fund (BCKDF), and Emily Carr. The IDS have since been maintained and upgraded through a combination of internal funds, grant funds (direct and indirect), repeated re-investment by WED (2008, 2010, 2013), and support by the National Research Council Industrial Research Assistance Program (NRC IRAP) (2007-2014) for industry outreach. Revenue from research activities, services and rentals, and master classes are re-invested into research support.

The new campus gives us an opportunity to revisit the concept of a research hub within a University, and particularly within a shared campus space. We have had the opportunity to see what works, what is needed going forward, and get familiar with the emergent clusters of research activity at Emily Carr. This will shape the physical home of research on the

new campus, and the ways in which we interface with the community, internal and external. One identified need is studio spaces, or research labs, where research teams can meet, work, gather project resources, and display results. As well as supporting research activities, these spaces will serve as visible entry points to the process and results for the public and visitors to the campus. We will also benefit from shared specialized technology labs linked with other R&D facilities on the Great Northern Way campus.

In 2009, we were awarded a five-year NSERC CCI IE grant that compelled us to build expertise and a well-articulated support structure around industry-partnered research. We built strategies around the sharing of Intellectual Property, drafting partnership agreements, cost sharing between partners, and integrating applied research into courses. We also built a management and fiscal structure to track project budgets and metrics. The experience of managing a large multi-year institutional grant, especially one targeted at partnered research, is invaluable as we continue to develop strategies for engaging external organizations.

In 2009, Emily Carr formed a Research Ethics Board (REB) in compliance with the Second Edition of the Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans 2010 (TCPS 2) and the Tri-Agency Framework: Responsible Conduct of Research (The Framework). The Emily Carr REB is the most active national board in the area of Art and Design and has taken a leading role in articulating the role of ethics in Art and Design research. The board is in regular contact with other boards and has participated in national and regional conferences on the topic of ethics. Internally, the REB regularly holds workshops and application clinics to keep the Faculty and Students informed about research ethics, and to refine policies and procedures.

CRC AND CFI ALLOCATION PLANS

The University currently has an allocation of three Canadian Research Chairs (CRCs). We have assigned these to areas connected to our thematic strengths and have recruited candidates for two of these positions, with an anticipated third within the next year. One of the candidates is a current Faculty member at Emily Carr. The other is a Canadian currently working in the United States. We were originally allocated one Tier I and one Tier II Chair. We converted the Tier I Chair into two Tier II Chairs after having difficulty finding a suitable candidate. Being conscious of the gender gap in the national allocation of research chairs, we have made every effort to encourage women to apply for the positions.

The following table outlines the planned deployment of the chairs:

Research Theme(s)	Tier and Agency	Time Period
Materials Inquiry and Critical Making	Tier II (SSHRC) (1 male candidate)	2014-2018 (pending renewal)
Emerging Media and Communication Social Practice	Tier II (SSHRC) (1 female candidate)	2014-2018 (pending renewal)
Indigenous and Aboriginal Studies	Tier II (SSHRC) (1 male candidate)	2015-2019

Table 1 Planned Deployment of Canada Research Chairs by Research Theme, Tier, and Agency

The corresponding CFI infrastructure funds will be used to complement the technological resources currently available at Emily Carr to support the specific needs of the Research Chairs. The new equipment will include the areas of 3D prototyping, electronics, and mobile media. The Director of the Intersections Digital Studios, the Director of Information Technology Services, and the Director of Research, review all planned CFI applications to ensure fit within the strategic goals of the University.

RELEVANCE AND TRANSFORMATION AS GUIDING PRINCIPLES

The primary principles guiding the evolution of Research at Emily Carr are *relevance* and *transformation*. Relevance concerns our relationship with those who benefit from our activities. On the most basic level, it means being useful and responsive to the context in which we operate and being mindful of the current social, economic, and political conditions. It means communicating the results of our activities in a way that can be apprehended and transformed into further action. It means forming long-term meaningful collaborative partnerships that are mutually beneficial. It means triggering and responding to feedback from all who have a stake in our activities. It means forming students that are ethically autonomous, able to think critically, and courageously step into a radically ambiguous world and find ways to contribute and add value.

While the term research has only relatively recently been applied to art, it has always been a profoundly important mode by which contemporary culture is investigated. Social, cultural, political, economic, and aesthetic conditions are entwined with the production of contemporary art. Research Creation was coined to refer to the many methodologies underlying knowledge creation through art making. The artworks reflect the diversity and richness of the multi-disciplinary work produced at Emily Carr. Creative work in all disciplines aims for an inclusive response to the problem at hand. It serves as an entry point for others to understand the questions being asked and the dynamic relationships between different points of view or perspectives on the problem. Along with broad exhibition strategies, catalogue essays, reviews, and artist talks, the artworks trigger dialogue across a broad sector of the receptor community.

In recent years, much attention and resources have been directed at applied research, placing an emphasis on direct, shorter-term problem solving often partnered with Canadian companies. This shift was a response to a perceived gap between research efforts in Universities and the needs of a changing economy. In many ways this was a favourable shift that triggered many fruitful conversation and collaborations between Universities and their community. Emily Carr in particular has benefited from the shift because we have an established mode of engagement with the community. The additional funding resources allow us to enhance our activities in this area. However, it is important to note that even though the work is applied, it is not necessarily short-term and in fact many projects span years of engagement with the same community group or issue, addressing complex issues in context and with appropriate methodologies. Art and Design methodologies position research as a mode of cultural practice that responds to and creates new social and cultural systems. Small iterative changes are mixed with more extensive shifts that take a longer view of transformative changes to systems that are not working. These larger shifts require deeper investigations of social and cultural context, including histories, paradigms, stakeholders, and active participants. Accordingly, we speak of *deep contextual and participatory research* that grounds the confidence of our direction in both evolutionary and transformative approaches.

An important aspect of both relevance and transformation is diversity on our campus and in our methods of teaching, learning, and research. The composition of the University community should reflect that of the community at large. The indigenous population in Canada is currently at 5% and growing rapidly. It is the fastest growing demographic in Canada and yet currently the least likely to attend University. It is crucial that we work with aboriginal communities to address the barriers to entry. Emily Carr is committed to integrating indigenous histories, knowledge, and ways of learning and teaching, into every aspect of our programs. We are committed to creating opportunities for communities to come together and share space and knowledge. The Assembly of First Nations has reiterated the essential role that artistic practices plays in the Truth and Reconciliation process. This moment is auspicious and we have the responsibility to respond with a continual process of enquiry and collaboration. The Aboriginal Office at Emily Carr is key to developments in this area, providing culturally appropriate support that encompasses both traditional and contemporary artistic expressions of Aboriginal peoples. In 2010, Emily Carr opened the Aboriginal Gathering Place that provides a culturally welcoming environment to enhance and nurture the educational, cultural and physical needs of our Aboriginal learners. The space is dedicated to student projects, workshops, ceremonies and celebrations of the University's Aboriginal community. Its design is relevant to and congruent with Aboriginal philosophies and values. It allows Aboriginal students to develop and strengthen their identities in a supportive, safe environment. Through the Aboriginal Program Office and

Continuing Studies, Emily Carr creates partnerships and programs targeted at forging pathways into the University. The University has established an Aboriginal Admission Policy to provide optimal access for Aboriginal applicants with an interest in pursuing studies in art, media or design at the post-secondary level. This policy reflects Emily Carr's mandate to facilitate Aboriginal student access and academic success. Our recruitment strategies have been successful and our Aboriginal student intake has doubled in the past two years and their completion rates remain high. Students with Aboriginal ancestry (status, non-status, Métis or Inuit) are encouraged to self-identify on their application forms and contact the Aboriginal Program Office. The Aboriginal Program Office has been instrumental in reinterpreting "success" by including "immeasurables" such as cultural and emotional well-being. At Emily Carr, our students' sense of community and connection is a performance indicator.

Another aspect of relevance is our relationship to the Earth. Where we live is the most encompassing context and sustainable practices should be a concern in all our activities. Emily Carr University is connected nationally and internationally to groups of leading thinkers on sustainability in art and design. We are founding members of PALS (Partnership for Academic Leadership on Sustainability), and the first DESIS Lab in Canada (Design for Social Innovation and Sustainability). We were also early signatories to the Talloires Agreement, a worldwide movement recognizing higher education's institutional responsibility to educate ethical leaders for a viable future. Sustainability is a moving target, requiring continual adjustments to our ways of thinking and doing. With systems thinking we look at life cycles, constraints, and connections to create solutions that have known benefits and impacts throughout the whole system.

Finally, we want to continue to be relevant to the lived social and economic situation of our students. We want to create research and learning opportunities across all our programs that address time and financial constraints, and fragmented schedules. We want to maintain social relevance by having a dynamic curriculum in frequent conversation with our students and community stakeholders. We want to support collaborative research projects through innovative knowledge production, sharing, and dissemination strategies, both online and co-located.

RESEARCH THEMES

Indigenous and Aboriginal Studies

Within this theme we acknowledge the ways in which Canada has been shaped by the relationship between the indigenous population and the settlers of this land. By studying, and creating opportunities to retrieve and grapple with the complex, often painful, history and the current context of this relationship, we seek to inform and transform the relationship we have with each other and with the land itself. The research in this theme spans all Faculties and has a deep engagement with the aboriginal and non-aboriginal communities, both local and global. As the Idle No More movement attests, we cannot look to a sustainable future without recognizing the broken links between government policy and the needs and concerns of the aboriginal populations, and indeed all citizens. We expect research in this theme to integrate indigenous modes of enquiry throughout the University, to inform curriculum and policy development, and to mobilize the community at large to address the challenges ahead.

We are all responsible for the indigenization of the University. Faculty represent diverse cultural perspectives and domains of knowledge specific to Aboriginal traditions. With this in mind we plan to hire a Canadian Research Chair specifically within this theme. This will increase our capacity to attract and retain aboriginal Faculty and will create a hub of activity in this area that can reverberate from the campus outward.

We currently have several tenure track aboriginal Faculty member and many others who are actively engaged with issues that have deep relevance to the aboriginal community. Brenda Crabtree, the Aboriginal Program Manager, has formed many collaborative relationships with other institutions, with an aim to create entry points to the University for aboriginal students, and awareness and dialogue throughout the community. The Trading Routes project led by Ruth Beer and Glen Lowry addresses the links between aboriginal trade routes and the proposed Alberta-British Columbia oil pipeline. Mimi

Gellman facilitates dialogue between aboriginal and non-aboriginal groups about land and other issues through art and design. Rita Wong, Faculty member in Culture + Communities has an interest in the ways in which water inhabits our collective consciousness and shapes our relationship to the land. Sandra Semchuk investigates interconnections between human, animal, land, and space through a sensory and stereoscopic lens. All of these projects use Research Creation as a mode of investigation. Other areas of research at Emily Carr have the potential to link to aboriginal studies through culturally specific modes of enquiry. For example, the Health Design Lab is currently developing a diabetes prevention and maintenance mobile application specifically aimed at aboriginal populations. The Sustainability research theme also has clear ties to indigenous traditions of respect for the natural environment. Brenda Crabtree through her practice and teaching has encouraged students to think of sustainable ways of harvesting of traditional First Nations materials.

We want the activities within this research theme to create an energetic environment for change. We aim to attract bright aboriginal students and Faculty who will see us as a welcoming and responsive place for engaging in direct and diverse conversations leading to innovation in education, social-economic development, community engagement, and global awareness.

Sustainability

This research theme reaches across art and design to address systemic barriers to sustainable practices and behaviours in design and manufacturing, art making, and social-economic policy. There are very active grassroots approaches to environmental awareness and sustainability. Gaining momentum, are top down approaches where governmental, institutional, and professional policies trigger changes that impact sustainability. Emily Carr is active in both these approaches. We teach, develop, and practice sustainable methods; and we participate in and lead conversations and partnerships that address systemic challenges in our fields.

In 2010, Emily Carr was ranked 2nd by Corporate Knights Magazine in an evaluation of Industrial Design programs in Canada. This ranking analyzes how Canadian universities and colleges fare in integrating sustainability into the school experience. In 2011, the Interdisciplinary Sustainability Minor called Social Practice and Community Engagement (SPACE) was created within the Faculty of Culture and Community. In 2012, Emily Carr hosted a focused discussion of sustainability issues at the University, which included a visioning exercise that chronicled the already extensive activities in this area on campus, and documented priorities for development. This included outreach initiatives as well as possibilities for students to self-direct sustainability research within Emily Carr. Shortly after, the Design for Social Innovation and Sustainability (DESIS) Lab was formed and the Natural Capital community projects course (a collaboration between Sarah Van Borek and the David Suzuki Foundation) began in the SPACE minor. The Research & Academic Sustainability Working Group regularly publishes the online newsletter, 180°, which documents and initiates discussions on local resources, events, research and developments related to sustainability. Emily Carr's Current Journal devoted the 2013 issue to Sustainability. Faculty member Louise St-Pierre is a founder and co-author of the Okala Practitioner Guide, which publishes guidelines on integrating ecological design. The guide is targeted towards "working designers, educators, and students in all design disciplines with practical methods for designing products, services and systems with low impacts to ecological health and human health[1]." Emily Carr University is a founding member of the Partnership for Academic Leadership on Sustainability (PALS), which bring together representatives from 33 art and design institutions to share ideas and leverage each other's strengths to bring sustainable solutions to fruition.

We want to continue our leadership in this area and bring our current expertise to bear on curriculum development and deployment, institutional culture, and the design of the new campus and its associated policies and practices.

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[1] www.okala.net

Health and Wellness

The health sector is of great importance to the public and governing bodies, both socially and economically. While they share the ultimate goal of a healthy population, the systems are sufficiently complex to create competing interests. Innovation in the health sector has the reputation of being slow. Because of the risks inherent to change, this sector is more suited to careful adaptations that address the need to balance stability, uniformity, efficiency, and responsiveness. Yet these small changes can have a profound effect on the delivery of quality care, and the subjective experience of the health care system. Emily Carr has been actively applying design methods to foster innovation in the health sector. In 2013, we formalized these activities by launching the Health Design Lab (HDL); a research cluster committed to applying collaborative solution-focused, human-centred research methodologies to complex issues in health care. The vision of the HDL is to be a recognized centre for research and design excellence in BC with an established reputation of providing innovative solutions to collaborative partners in health care.

While the goal of any design project is to present solutions to a design problem, historically these solutions have been largely intuitive. A client prepares a project brief then a design "expert" applies their knowledge and offers solutions. In contemporary design practice, and particularly in health design, this is no longer sufficient. Collaborative partners that are accustomed to requiring hard scientific evidence to support hypotheses are loath to accept intuition as a valid methodology. Design decisions based on evidence, supported by primary qualitative research, are more comfortably accepted by health practitioners, and result in better-suited design solutions. This evidence-based design practice forms a cornerstone of the HDL methodology.

A key factor in extending the reach and capacity of the HDL will be strategic partnerships with other academic institutions. Collaborative partnerships have been established with the British Columbia Institute of Technology (BCIT) and UBC. At UBC, collaborative relationships have been established with various stakeholders with the British Columbia Personalized Medicine Initiative (BCPMI) group and the Collaborative Advanced Robotics Intelligent Systems (CARIS) Lab. We also have community partnerships with Vancouver Coastal Health, the Dr. Peter Centre, and the G.F. Strong Rehabilitation Centre.

Materials Inquiry and Critical Making

Artists and designers have a historically deep engagement with material cultures and practices. Many of the major art + design institutions were developed during the late 19th and early 20th century as centres for artists and designers involved in the industrial trades. More recently, artists and designers have developed sophisticated practices for examining the processes and practices of late-industrial manufacturing and fabrication as a global and increasingly distributed phenomenon.

Through the *Material Matters* research cluster, Emily Carr is investigating new materials and processes that reference traditional and contemporary modes of making. *Material Matters* looks at ways in which additive manufacturing techniques can use waste from other processes, feed other processes like mold-making for foundry and ceramics, or can merge different materials such as cloth and plastics or electronics. *Material Matters* has connections with the Maker community as well as local open source hardware and software initiatives. The recent growth in affordable and accessible additive manufacturing tools and technologies has created opportunities for new research and development pathways in the object making industries. In particular, there are trends in rapid prototyping of new products in collaboration with focus groups, and in custom personalized just-in-time manufacturing of products. The new ease of going from concept, to design, to printed object however begs the questions of what should be printed, with what material, and what the projected life cycle of such objects should be. The design of tools and technologies for 3D printing thus far has been mostly optimizing ease of use, and cost of materials, with less emphasis on sustainability or design methodologies. In this way this theme relates to the theme of *Sustainability*.

The field of Critical Making is concerned with the process of making as a mode of investigation. Rather than an end unto itself, the object produced (much like art making in Research Creation) is a means of understanding a problem space by creating a physical representation of an investigation. Because of these aims, Critical Making is invested in the democratization of making processes and tools. It is associated with the Do-It-Yourself (DIY) and Open Source movements. It promotes making as a way of knowing and critically engaging our relationship with technology and objects. It is intimately connected with art making and Research Creation but with an additional emphasis on tinkering and prototyping. Applying our expertise in materials, design, electronics, and art making we aim to integrate critical making into all our research themes, and to create opportunities for public discussion and participation in the act of making as enquiry. An example of this way of working is the RAW DATA project by Ingrid Koenig, faculty member in Visual Arts and Material Practice. In collaboration with the TRIUMF physics research lab, and a group of students, artists and designers, the project interprets and represents current discoveries and investigative paths in Physics through the act of making and discussing. Other Faculty members engaged in critical making include Beth Howe, Julie York, and Landon Mackenzie who actively question and use new fabrication and dissemination methods within established visual art modes.

Emerging Media and Communication

All media and communication forms are undergoing disruptive transformations largely due to new platforms for content creation and sharing that were previously constrained by publishing and distribution costs. We are in an information revolution, which creates opportunity and unpredictability. Daily we are presented with new ways to store, create, and share information. The sheer volume of information and distribution channels has changed the way we assimilate information and has led to an uneasy relationship with our information sources. We are increasingly presented ambiguous or unchecked references, which creates conditions where truth is defined by social consensus: we are relying on each other to present a coherent representation of the world and these representations are clustered and often isolated from each other. The importance of innovative ways of communicating information and promoting social feedback and cross-fertilization has never been so crucial, for coherence and for knowledge synthesis, sharing, and application.

Emily Carr is actively participating in the revolution of information production and distribution, focusing on expanded cinema and imaging, new book forms, and communication/interaction design. In 2010, Emily Carr launched the Stereoscopic 3D Centre, which brings together and supports a community of researchers and practitioners in the area of 3D filmmaking, and other screen-based art forms. The Centre is now extending its reach to other areas of innovation in imaging including expanded temporal/spatial resolution, and distribution mechanisms such as augmented and virtual reality. The Centre is interested in the ways in which technological and craft innovations are influencing and being influenced by aesthetics and narrative. As well as maintaining an active program of research in this area, the Centre emphasizes the building of community to share experiments and experiences with new methods of image creation/capture, editing, and distribution. Regular meetups and workshops are held where we share current research in the field, and create networking and collaboration opportunities for all stakeholders. The Centre recently formed the Canadian chapter of the International 3D Society (now called the International 3D and Advanced Imaging Society). Emily Carr also leads a research project focused on the moving image within the GRAND Network Centre of Excellence. This project brings together 7 Universities, 4 industry partners, and 12 researchers, including Ontario's 3DFLIC consortium.

The Social and Interactive Media (SIM) Centre was launched in 2010 with a mission to study and intervene in a media landscape that is increasingly tied to the social realm through new devices, sharing platforms, and interaction designs. The Centre is concerned with the ways in which information sources are made available, and the socio-political and economic context of their access, distribution, and analysis. Information sharing occurs on a very public and evident level on social networked platforms such as Facebook and Twitter. On a more covert level large aggregate data sets are collected as a side effect of other sharing activities. Data is collected as a matter of course on most digital interactions, and increasingly from sensors on our bodies and in the environment. The term Big Data was coined to capture this moment where data has become a material concern. How data is stored, analyzed, and activated is a conversation that involves scientific, technological, and social design challenges which we are well positioned to address.

The SIM Centre is strong in the areas of visualization and e-book design. Visualization and visual analytics transform data into forms that can be visually understood by specific audiences at different stages of data collection and analysis. Interactive visualizations present additional design challenges. Amber Frid-Jimenez, a Faculty member in Design + Dynamic Media, is leading a project in collaboration with Mozilla, which is designing and implementing an interactive visualization of the data collected by third parties when users browse web sites. This visualization promotes awareness in Mozilla's Firefox browser users, and gives them an opportunity to manage the flow of their private information. This project has clear ties to the theme of *Social Practice, Transformation, and Innovation in the Public Sphere*. Visualization is also an important component to *Health and Wellness* where personalized medical data needs to be quickly apprehended and acted upon.

The book form is being challenged by shorter, and more fragmented ways of sharing information. The value of the physical book is increasingly found in unique collectable designs, while the value of e-books lies in the possibility of dynamic, interactive, and social content. A number of different communities have emerged that are approaching questions about the future of the book from a variety of different angles. These communities are highly active and are supported through diverse structures, including industry, academia, and cultural institutions. They are asking how books can be reinvented in the frame of digital culture and how interdisciplinary communities of practice in the realm of books and publishing can be meaningfully cross-fertilized. Emily Carr aims to be a leader in the interdisciplinary intersection between publishing, product, digital culture and design in relation to books. Emily Carr has already published several e-books and every year leads a group of designers in creating an e-version of the University's Design Journal, *Current*. Celeste Martin, a Faculty member in Design + Dynamic Media, is leading a project in collaboration with Loud Crow, a local publisher of e-books, to bring innovative design possibilities to their e-book creation platform.

Social Practice, Transformation, and Innovation in the Public Sphere

We define social innovation as a broadly relevant, multi-partnered field that feeds across and within disciplines and contexts to achieve organizational, civic, political, aesthetic, economic or structural change that improves the lives of people. We see social innovation as deeply related to the problem solving approaches of Art and Design institutions.

Emily Carr is engaged with the public sphere on many levels. Public art, and socially engaged art and design practices in the public realm are vibrant areas of work and investigation. This theme encompasses projects and research from interdisciplinary faculty including the Faculty of Design and Dynamic Media, the Faculty of Visual Art + Material Practice, the Faculty of Culture + Community and its pioneering SPACE minor, Continuing Studies, and Aboriginal Programs. This work has a focus on creating a context and ethical framework for ongoing community engagement, which is expressed through internal and external collaborations, partnerships with industry, academia and non-profits, and innovative curriculum development. Dr. Cameron Cartiere, a Faculty member in Graduate Studies, has successfully built a research program studying the impact of Public Art in the community. The chART:Public Art Marpole project engages with the community of Marpole using user-centred methods and public events to understand that community's relationship to public art in the context of their identity and development.

The vision for *Social Practice, Transformation, and Innovation in the Public Sphere* at Emily Carr is to continue our long history of work in this field and to draw together our diverse activities under a single umbrella to become more effective, participatory, inclusive, cross-fertilized, and visible. Our external partners in this work are aligned but diverse – they are industry, academic, cultural, governmental and non-profit partners focusing on social or environmental sustainability, engaging with areas and communities around social venture, philanthropy, social enterprise, social innovation, and social practice. They represent a broad array of approaches, interests, communities, and methodologies. Our goal is to bring them together and increase our ability to participate in the broader project of improving where we live, how we relate to each other, and how we can do better as a society.

New Models of Entrepreneurship

Emily Carr has established a number of modes - from innovative curriculum, research initiatives, speaker series, and continuing studies initiatives - to build capacity, culture, and community around entrepreneurship. We will continue to build and broaden our influence and reach in this area and to pilot new ways to work with quickly evolving structures within industry. We want to build and support entrepreneurial culture for our students, who represent the next generation of key innovators and influencers; and to strengthen the work we do with industry, which provides a framework of connection to local, regional, national and international conversations around emerging players and ideas.

We are exploring initiatives that tackle the question of relevance, raising a number of questions: What is the role of the Art and Design university in fast-moving software cultures of production that are prevalent in digital industry? How can the University best interface with industry in a culture of perpetual change? How can we simplify design and research in industry contexts without losing nuance? How can the institution be adaptive and yet broadly relevant? How can we use our strength as one of the world's top design schools to build relationships with industry and pioneer new models of working with the innovation ecosystem locally and regionally? How can we advance and advocate for the significance of Art and Design to innovation and put it on the same footing as science, mathematics, and engineering? And how can we promote a culture that engenders profound confidence in our students so they can step into any industrial sector and create meaningful change?

One strategy is to recognize the unique and specific position we occupy in the business, technology and innovation ecosystems in British Columbia. We can develop ways to complement existing accelerators, incubators, and venture firms whose early stage startups and venture-backed companies have technology and business resources but lack specific direction and mentorship in design. This is a broad area of research with multiple partners across venture firms, investment funds, professional associations including BC Technology Industry Association (BCTIA), BC Innovation Council (BCIC), academic institutions, entrepreneurial programs and accelerators including Launch Academy and GrowLab. It also involves industry partners like Hootsuite, Kickstarter, and Mozilla, and social venture communities such as the Social Venture Network, Vancity, and enterprising non-profits, complementing our work in the theme of *Social Practice, Transformation, and Innovation in the Public Sphere*.

MEASURING SUCCESS

Indicators of our research impact and evolution will be seen by an increase in:

- Government sponsored grants and contracts;
- Graduate student enrollment and participation in Faculty research projects;
- Integration of undergraduate students into research;
- Cross-Faculty collaborations;
- Awareness of research activities at Emily Carr;
- Collaborations with other institutions;
- Community engagement activities;
- Industry contribution and collaboration;
- Measureable social and economic impact;
- Aboriginal awareness and participation.

PLANNING AND APPROVAL

This document was written in consultation with a broad cross-section of the Emily Carr community under the leadership of the Director of Research. It is endorsed by the President and is approved by the Senate. In December 2018, the Senate voted to extend the plan to 2019.