In this paper I discuss the adoption of artistic research creation methodologies, the creation and exhibition of artistic works closely aligned with scholarly research, as a way to increase public engagement with academic research. I begin by discussing the need for scholars to consider the ‘public first’ when developing research communication plans, and draw upon the emergence of ‘mobile first’ interface design as a metaphor. With mobile first development, also known as progressive enhancement, ‘You start by establishing a basic level of user experience that all browsers will be able to provide when rendering your web site,’ but you also build in more advanced functionality that will automatically be available to devices, such as desktop computers (W3C 2015). I argue that we need to prioritize public first research outputs if we are truly serious about engaging the public in our research. I then move into a discussion of various research creation methodologies and explain how they are similar to, and differ from, critical making, another emergent humanities research practice that is based upon the making of physical objects. Finally I provide examples of successful research creation activities, including some related to my current SSHRC-funded project, The Post-Digital Book Arts.

Keywords: art; research creation; practice-based research; public scholarship; public humanities

Introduction
In the humanities we have a traditional model for transitioning academic research into the public sphere: typically, the researcher performs the research and publishes it through academic channels such as conferences, journals, and books. At some point along the way, a suggestion might be made to the researcher that the public might be interested in the topic, and perhaps a public lecture is given at a library, or the like. In rare cases the researcher might refashion the academic article or book into a more public-friendly publication, such as a documentary, Wikipedia entry, magazine article, or trade book. But generally if this reframing takes place it is done not by the academic but by a professional writer, journalist, or producer, and the academic becomes simply a talking head, a name in the credits, or a mention in a footnote.

In this paper I would like to argue for an alternate method that prioritizes the public communication of research results over the academic, or that at the very least puts the two on equal footing. When proposing alternative modes of publication we must acknowledge the academic structures that we must work within (even if we are trying to change them along the way), and frame these public research outputs in a manner that will ensure that those who choose this path can clear the various hurdles of academic career progression. Thus it is to our advantage to adapt public scholarship methodologies that have already been accepted by academia as legitimate forms of research and research dissemination. I am proposing artistic research creation, a blending of artistic practice and academic research, as one potential way to put the public first in humanities scholarship while still operating within the bounds of established academic practices.

I will begin by discussing the need for scholars to consider the ‘public first’ when developing research communication plans, and draw upon the emergence of ‘mobile first’ interface design as a metaphor for how the public can be prioritized in our research outputs. I will then move into a discussion of various research creation methodologies and explain how they are similar to, and differ from, critical making, another emergent humanities research practice that is based upon the making of physical objects. Finally I
will provide examples of successful research creation activities, including some related to my current SSHRC-funded project, The Post-Digital Book Arts.

**Mobile First as a Model for Public First**

My desire for the humanities to adopt, at least at times, a public (or, perhaps more appropriately, publics) first model of research communication is influenced on a conceptual level by the recent move towards mobile first web design practices. Mobile first developed in response to the increased number of people using their phones, and not a desktop computer, to access the web: in 2015 smartphones became the most popular way to access the web in the UK, and in the developing world they are often the only way (Hern 2015). Thus web—and increasingly application—developers are being encouraged to begin development of interfaces by first building them for the smartphone.

In mobile first design, also known as progressive enhancement, ‘You start by establishing a basic level of user experience that all browsers will be able to provide when rendering your web site,’ but you also build in more advanced functionality that will automatically be available to devices, such as desktop computers (W3C 2015, n.p.). The counter-approach is graceful degradation, which begins with a more complex solution and then simplifies the interface as the viewing device becomes less capable. The World Wide Web Consortium (W3C) recommends that developers take this mobile first approach and identifies only a few circumstances where a graceful degradation approach is viable: when retrofitting an old product and there is not the time, access or insight to redesign it; or when there is not time to finish a product with full progressive enhancement, which they feel is often a sign of bad planning or running out of budget (W3C 2015).

Extending this metaphor, I feel much current public humanities work falls into the category of graceful degradation, or academy first; we begin by creating the complex project, because that is what we have been trained to do and what we get rewarded for doing, and have the best intentions to re-package it for public audiences. How much we actually accomplish to this end depends on the amount of time and money we have left after the initial academic research is published, which is generally little. The graceful degradation approach of humanities research does address the problem that James Archer (2015) identifies with mobile-first design: the tendency for designers to now force desktop users to use application interfaces completely unsuitable for large screens and non-touch inputs. None of us want our research to be limited to what could be communicated in a History channel program or Wikipedia entry, so we must continue to exercise scholarly rigour and communicate to our peer communities in a suitable manner. But we would be well served to consider various publics as an equal audience for our outputs, rather than as just an afterthought or a bit of fluff in a grant application. And given the disproportionate lack of public humanities in the past, it is worth prioritizing public first research outputs if we are truly serious about engaging the public in our research.

**Public Scholarship through Research Creation**

In the recent past there have been numerous steps taken towards making research more available to the general public. Funding bodies such as the Social Science and Humanities Research Council of Canada and UK Research and Innovation are requiring that the results of the projects they fund, or at least the resultant journal articles and conference proceedings, are published through open-access venues and are thus freely available to the public. The rapid increase of digital humanities projects has also resulted in many projects having a public presence on the internet.

However, is simply making material written for an academic audience available to the public truly public scholarship? In ‘Public, first,’ Sheila A. Brennan (2016) rightfully critiques the current trend of labelling digital humanities projects as public simply because they are available on the internet or published in open-access journals: ‘Working in public—an intentional approach to working and sharing research and practices—does not equate to doing public digital humanities’ (n.p.). Instead she proposes an appealing model based on public history practices as they emerged in the later 20th century where historians work within networks of libraries, archives, and museums, and learn from their approaches to working for and with various publics.

I would like to add another set of institutions to Brennan’s list, those of the art world. While the art gallery, much like academia, does have a troubled history of elitism and exclusion, most now exist within the same class of public institutions as museums and thus must engage with the public to remain viable. The shortcomings of the formal gallery system also led to the rise of the artist-run centre, public art festivals, and other forms of community-engaged art practice (Bronson 1983). These institutions have the potential to be valuable partners and/or exemplars for scholars whose work does not fit within the boundaries of the museum or the archive. But to do so, researchers must adopt artistic creation strategies within their research and research communication.
Smith and Dean, in *Practice-led Research, Research-led Practice in the Creative Arts* (2009, 7), define practice-led research as both the work of art as a form of research, and the process of discovering research insights through the creation of a work of art. Others prefer the term practice-based research; for instance, Emily Carr University (2017) classifies much of the research done there as ‘Practice-based research’:

This form of research integrates the professional practice of an artist or designer with specific research questions, methods and outcomes.

The research can be about art, for example examining the work of a particular artist or group in a new context. It might be ‘research for art’ in the form of an exploration of new technologies like 3D printing that can be used by artists. Finally, it might be ‘research as art’ where the outcome of the work is not a published paper but an installation, performance, or work of art which communicates the outcome of the research to the viewer. (n.p.)

The practices I am advocating for in this paper fall under the third category, where the artistic output is a medium for research communication. Other artist/researchers further separate practice-led and practice-based into two distinct practices. Rather than focusing on the exact terminology proposed by different groups I am going to cluster them under the heading of research creation, which is defined by the Social Sciences and Humanities Research Council of Canada (SSHRC) as an approach to research that combines creative and academic research practices, and supports the development of knowledge and innovation through artistic expression, scholarly investigation, and experimentation. The creation process is situated within the research activity and produces critically informed work in a variety of media (art forms) (n.p.).’

Not only does the broadness of this definition make it inclusive to a wide variety of practices, adopting the language of our primary granting agency lends an immediate credibility to a methodology that may be challenged by our peers less likely to accept non-traditional research outputs.

**Critical Making Is Not Always Research Creation (But It Can Be)**

Although I am defining research creation in broad terms so as to be as inclusive as possible to various practices, noting the sometimes differences it has to critical making—another emergent humanities research strategy that emphasizes the making of things—helps to reveal how research creation can be an integral part of open social scholarship. As defined by Matt Ratto (2011), critical making involves ‘making things—as part of an explicit practice of concept elaboration within the social study of technology’ (252). However, in the end the ‘things’ made are not the primary research output: ‘Critical making emphasizes the shared acts of making rather than the evocative object ... through the sharing of results and an ongoing critical analysis of materials, designs, constraints, and outcomes, participants in critical making exercises perform a practice-based engagement with pragmatic and theoretical issues’ (Ratto 2011, 253). The making of things is part of the research process, but in the end the research results are disseminated through traditional academic fora.

However not all critical making practitioners consider the created object to be subservient to the resultant discourse. In explaining how his practices were influenced by, but differ from, Ratto’s conceptualization of critical making, Garnet Hertz (2015) notes:

I felt that Ratto’s framing of critical making as a process limited its ability to disseminate critical thought through objects. Objects are effective as things to think with, can link concepts in a different way than language can, and can have a life of their own and can travel through different contexts. Although constructed objects are often imprecise in communicating ideas in comparison to language, things have the strength to hit you powerfully and forcefully. Critically engaged language can do detailed surgery on a topic; critical objects can hit like an emotional sledgehammer. To stop short of documenting and disseminating objects that are made in a critical way cuts the audience off from the impact of things to think with. (n.p.)

Ratto is trained as an academic, while Hertz’s background is in art, and it is interesting to note how the traditions of their disciplines influence their understanding of what ‘scholarship’ is. Most relevant to my hope to bring research creation and open social scholarship together is Hertz’s emphasis on the audience; by displaying his works in gallery settings he exposes his research to a much broader audience than can be reached through academic publishing and makes them subject to public discourse (see **Figure 1**). This is scholarship that is both open and social, and positions the public first in the research process because the work is without meaning until interacted with.
An Example of a Publicly-Engaged Research Creation Project

To better understand the wide range of potential outcomes and audiences for a research creation project, and how it can position the public first, it is worth looking at a well-developed and multi-faceted example. *Trading Routes: Grease Trails Oil Futures*, led by Ruth Beer, combines art exhibits with video interviews, public events, and academic papers ‘to promote dialogue and exchange addressing the impacts of energy (fossil fuel) extraction, transportation, and use, including the effects of climate change on everyday life. The research focuses specifically on sites impacted by the pipeline construction in remote communities’ (Beer and Olauson 2014, 2). Most notably, the key outcome for the project is not the many art exhibits, nor the numerous articles and book chapters, the project team has produced; rather, it is the conversations that resulted: ‘contemporary art and museums have the creative potential to craft physical and social spaces for visitors through aesthetic engagement...to stimulate new and productive dialogues’ (Baker and Beer 2016, 2; see Figure 2).

In addition to making many conversations with elders, artists, and others from the communities affected by potential pipeline construction available on the project website, Beer and her colleagues have written extensively on using art to engage with communities. Referencing the work of Irit Rogoff they write:

As a strategy, TR [Trading Routes] explores ‘potentiality’ in thinking of art and exhibition practices as educational. By contributing to notions of place, these kinds of pedagogical strategies collapse the difference between learning spaces and exhibition spaces (Rogoff 2007). When going into Northern communities, artist/educators would be more beneficial to follow an approach...understanding that their representations produce social implications, and that by making a work that promises to ‘do’ nothing except construct a story, art can take on a second life from its maker, woven into the social fabric of the community...This is not education with a ‘learning outcome’ in mind, it is a process of investigation that refutes the presence of an imminent meaning waiting to be uncovered. (Beer and Olauson 2014, 14)

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**Figure 1:** Garnet Hertz’s ‘Phone Safe 2’ is part of a series of works that force users to confront their dependence upon technology by deliberately making their phones inaccessible. More information available [here](http://example.com).

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Beer sees her work as educational not because it sets out to ‘teach’ the communities she is engaging with, thus maintaining the traditional academic/public hierarchy, but because it upsets this hierarchy by accepting that the principal value of the project is not the art objects and/or teaching the public to interpret the art ‘correctly’, but is instead in the communities’ interactions with the works. She places the public and the social first in the research enterprise and understands the resulting discourse, not her personal work, is the true output of the project.

**Personal Steps towards Public First Scholarship**

Having been involved in digital humanities projects since the mid-1990s, and growing up in an environment where I was encouraged to tinker with things (be they my bicycle, a circular saw, or the family Commodore 64), I consider myself inclined to ‘make things.’ However, as I embarked on an academic career I found myself focusing on the standard research outputs of academic talks and publications, be they digital or print, because that was what I had been trained to do and what I saw being rewarded by hiring committees. Two experiences led me to strongly question putting all of my research energy into outputs that limited their audiences to those strictly within the academy. The first was an exhibition of manuscript leaves that I did in collaboration with my PhD supervisor Peter Stoicheff and several other students. Although there is now extremely dated web-version of the exhibit, the primary output was the exhibition itself, mounted first in 2005 and remounted as part of Congress 2007. We were amazed at the public interest, and stunned when the public lecture for the exhibition filled one of the largest rooms on campus. The History Channel even picked up on it and did a small piece on the original collector of the leaves (an example of the traditional model of academic to public knowledge transfer that I outlined at the start of this paper).

The second experience was in 2014 when I was approached by an artist, Laura St. Pierre, to collaborate on a work for display in the Saskatoon Nuit Blanche, a nighttime public arts festival. The resultant work, ‘Fruits and Flowers of the Spectral Garden,’ had several hundred viewers wander through it over the course of the evening (see **Figure 3**). Interacting with these participants, and overhearing their conversations, I was struck by how the work helped initiate conversations about gentrification, urban green spaces, and memory technologies. While the manuscript exhibit and public talk opened my eyes to the fact that people off-campus might actually be interested in what we do, it was also a very hierarchical experience: come to us and we will tell you things. However with the art installation we were in the public’s space and the conversations were theirs; all we provided was a stimulus. As we moved the work towards a new installation at the Bonavista Biennale in Newfoundland for the summer of 2017 we did it in response to both the initial audience’s reactions and the local circumstances of the new exhibition. Even installation was a public event; one of our locations was the main puffin viewing point in Elliston and over the course of a two-day install I was interrupted every few minutes by someone wondering what exactly I was doing. This made for a very slow installation, but an incredibly rich social scholarship experience.

![Figure 2: Trading Routes: Water, Fish and Oil](image)

*Figure 2: Trading Routes: Water, Fish and Oil. Curated by Karen Lee, Gulf of Georgia Cannery Museum National Historic Site. Available [here](url).*
These experiences, including the artistic mentoring I received from St. Pierre, instilled in me a deep desire to engage with the public more meaningfully in my research. In 2016 I took advantage of the ‘Research Creation’ checkbox on the SSHRC Insight Development Grant application form and was, thankfully, successful in securing funds to study the post-digital book arts in Canada. I promised very little in the way of traditional research outputs: two conference papers and two articles. But what I did promise was to engage various publics in multiple stages of the research and to communicate that research through a variety of venues and events. In the first year of the project we interviewed book arts practitioners to see how various digital technologies have impacted their work. These interviews are available to the public as edited videos and full transcriptions via the project website, and were also the basis for a public roundtable at the Alcuin Awards, the Canadian Book Design awards, in the fall of 2017. In the spring of 2018 a group of 20 faculty and students from a variety of disciplines came together at a two day Hackfest to imagine the post-digital artist book. Creating objects along the lines of Garnet Hertz’s speculative works, this event forced artists and researchers who are accustomed to working alone to work collaboratively. Outputs inspired by the event included augmented reality books and app-based reading environments, and the code and tutorials necessary for others to experiment with similar tools are available on the project website. The culminating event will be an exhibit in a public gallery where various experiments in the post-digital book will be displayed for public interaction. By putting the public first in our research plan I hope to raise awareness of the contemporary book arts, to be able to communicate the stories of those who are making a living as book artists, and thus to show the arts are a viable career, and to enlist the help of these experts in creating new ways to practice the book arts in the 21st century. More information about the project, including the complete text of the grant application, is available at the Post-Digital Book Arts website.

**Conclusion**

Doing any type of public digital humanities work requires an intentional decision from the beginning of the project that identifies, invites in, and addresses audience needs in the design, as well as the approach and content, long before the outreach for a finished project begins. (Brennan 2016)

If we are truly serious about doing public scholarship we must, as Sheila Brennan advocates, make the public aspects of the project central to the overall goals from the very beginning of the work, rather than leaving them as something that will be done once the ‘real’ research is finished. One method I am advocating to

![Figure 3: ‘Fruits and Flowers of the Spectral Garden’ by Laura St. Pierre and Jon Bath. Nuit Blanche Saskatoon 2014. Available here.](image_url)
achieve public-first scholarship is artistic research creation; not only can art invite the general public to interact with it in different ways than if the same research was presented through traditional means, but by changing what we perceive as ‘research’ we can also reexamine our roles as researchers in society. As Irit Rogoff (2006) writes,

practice can spur one on, not because it is self-consciously informed but because it gives itself a different set of permissions. Permission to not cover all the bases all the time, permission to start in the middle, permission to mix fact and fiction, permission to invent languages, permission to not support every claim by the proof of some prior knowledge, permission to privilege subjectivity as a mode of engaging the world and its woes, permission to be obscure and permission to chart a completely different path of how we got here, at this very moment. (20)

Artistic practice provides a space where the role of the researcher is not to educate, nor is it to provide the answer. Rather it is to engage in dialogue with a community whom, in the end, will be the ones who make meaning out of the work.

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Competing Interests
The author has no competing interests to declare.

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