ABSTRACT “Research-creation” is an emergent category within the social sciences and humanities that speaks to contemporary media experiences and modes of knowing. Research-creation projects typically integrate a creative process, experimental aesthetic component, or an artistic work as an integral part of a study. The focus of this article is how this practice contributes to the research agenda of the digital humanities and social sciences. We discuss how the term has been articulated in academic policy discourses and examine some prominent academic analyses that describe the practice of research-creation. We then unravel, enumerate, and expand upon the concept of research-creation from the purview of Ludwig Wittgenstein’s notion of “family resemblances” before moving to a discussion of four modes of research-creation: “research-for-creation,” “research-from-creation,” “creative presentations of research,” and finally “creation-as-research.”

KEYWORDS Research-creation; Family resemblances; Intervention

Introduction

“Research-creation” is an emergent category within the social sciences and humanities in Canada. In Britain and Australia, this is typically framed as “practice as re-
search” (see, for example, Barrett and Bolt, 2010), whereas in the U.S., it is called “arts-based research” (see, for example, Leavy, 2009) and/or rolled into discussions regarding “creative arts PhDs” (Elkins, 2009). Research-creation “theses” or projects typically integrate a creative process, experimental aesthetic component, or an artistic work as an integral part of the study. Topics are selected and investigated that could not be addressed without engaging in some form of creative practice, such as the production of a video, performance, film, sound work, blog, or multimedia text. While works may be exhibited or performed as “art,” and research-creation is occurring in a wide-range of cultural institutions and disciplines, the focus of this article is how this practice acts as an epistemological intervention into the “regime of truth” of the university (Foucault, 1980). Universities and other degree-granting institutions have firmly established protocols and practices for what constitutes valid scholarship that act as normative frameworks for modes of presentation. Research-creation can thus be read as a methodological and epistemological challenge to the argumentative form(s) that have typified much academic scholarship. In research-creation approaches, the theoretical, technical, and creative aspects of a research project are pursued in tandem, and quite often, scholarly form and decorum are broached and breeched in the name of experimentation.

Research-creation is not so much a “new” method as it is a “newly recognized” academic practice that has gained ground in the past ten years. Walter Benjamin’s (1969) innovative use of the allegory and the structure of the “theses” in writings such as “Theses on the Philosophy of History,” Marshall McLuhan’s (1970) experiment with typography in Counterblast (McLuhan & Parker, 1970), Donna Haraway’s (1991) remixing of the manifesto, and Roland Barthes’ (1977) deployment of the alphabet as a template for an examination of the discourse on love all indicate that academics (in the humanities and social sciences) have long experimented with writing that challenges the logico-deductive or analytic forms of argumentation or presentation. Versions of the scholarly genre are recognizable: essays must have a thesis-statement, research-question, literature review, theory, method, presentation of findings, discussion and conclusion. Research-creation, as a method of inquiry, questions formulaic representations of the academic genre and the production of knowledge in print cultures.

In the present era, research-creation is often associated with new media experimentation. Caitlin Fisher’s (2001) hypertextual novels, for instance, exploring girlhood dreams and fantasies are simultaneously research into the novelistic form, research on girlhood sexuality, and research on hypermedia technologies, whose final product is not an essay on the process, but a multimedia work These Waves of Girls. And while the potential of digital distribution and non-linear narrative forms are opening up new opportunities and accelerating this movement, it is not simply a result of the world of digital production, as the examples of Benjamin, McLuhan, Haraway, and Barthes indicate.

Despite these examples and this lineage, academics who do production-based work and whose practice is entangled with the idea of research-creation, find themselves in institutions where scholarly forms of publication have been dominant, and where new bureaucratic exercises, such as the imposition of “metrics” to measure and evaluate academic research across disciplines, threaten to introduce mechanisms that
will impose new forms of standardization. These new metrics, at least in our experience, typically model and evaluate academic “outputs” with measures that are rooted in the sciences, and which favour traditional academic publications that are properly “indexed,” as a way to calculate the relative value of research. As such, much time is spent both defining and defending research-creation practices as a valid form of academic inquiry.

More recently, academic publishing has had to grapple with the question of what constitutes a peer-review publication for works that contain a “creative” component that is intrinsic to the piece. **Vectors**, an experimental journal from Los Angeles is pursuing this possibility with a vengeance in its fostering of academic reflections that can only exist in the online world. Journals, such as *Qualitative Inquiry*, publish works that are creative, while others, like the *Canadian Journal of Communication*, use the online capabilities of academic distribution to allow authors to insert image, text, or sound files into the publication. Like many concepts, the term “research-creation” has had a performative effect—or “enactment,” in the words of Annemarie Mol (2002)—as it has been embraced by its practitioners and institutionalized in universities and funding agencies, who are beginning to legitimate it in the form of acknowledgement and support.

Yet, as a term, the idea of research-creation can be oblique, obscuring critical valences that might elucidate its permutations and possibilities. Such a “condensing of a host of semiotic possibilities,” under a single umbrella term, is described by feminist theorist Teresa de Lauretis as the “trap of representational coherence” (1984, p. 35). It is not our intention to police the meaning of the term research-creation, but rather to open up its potential as an approach, and not simply as a result. To do so, we first discuss how the term has been articulated in academic policy discourses. We follow this with a quick examination of some prominent academic analyses that try to describe the practice of research-creation. We then unravel, enumerate, and expand upon the concept of research-creation from the purview of Ludwig Wittgenstein’s (2009) notion of “family resemblance,” before moving to a discussion of four ways that the term “research” can be articulated to the idea of “creation.” The point is to understand research-creation as a form of critical intervention that speaks to the media experiences and modes of knowing by students and scholars in this moment.

Paying attention to what lies in between the two words that are joined in “research-creation,” and using Wittgenstein’s insights, we describe and discuss four different types of research-creation: “research-for-creation,” “research-from-creation,” “creative presentations of research,” and finally “creation-as-research.” In each instance, we underscore how research-creation may act as an innovative form of cultural analysis that troubles the book, the written essay, or the thesis, as the only valid means to express ideas, concepts and the results of experiments. We also argue that in a society awash in social media, new modalities for the presentation of research to reach broader audiences may be necessary. These four categories represent differing criteria, practices, and end results, and require separate forms of assessment and reflection for their distinctions to be understood and imaginatively operationalized by students and faculty embarking on research-creation projects.
Much of the current debate around research-creation as a method tends to conflate these dynamics resulting in confusion for academics and students as well as an often undue focus paid to “deliverables”—a framework drawn from the discourse of neoliberal economics that presently permeates public academic funding in Canada. The 2010 cuts to humanities, social sciences, and fine arts university funding in Great Britain are but one indication of where such sensibilities, which undervalue experimental or critical research, may lead. The development of larger and more refined vocabularies for discussions around research-creation is paramount, if we are to develop the concept’s methodological and critical potential and assert the relevance of the so-called “digital humanities.”

Approaching the subject: The bureaucratic uptake

In her landmark work on textually mediated forms of social organization, Dorothy Smith (1990) suggests that documents are not just representative of social relations, but constitutive of them. Our lives, she says, are infused with modes of inscription that we may take for granted. “We get passports, birth certificates, parking tickets; we fill in forms to apply for jobs, for insurance, for dental benefits” (p. 209). Text-based bureaucratic cultures infuse the practices of everyday life, as well as the cultures of institutions. As Smith pithily states, “advanced contemporary industrialized societies are pervasively organized by textually mediated forms of ruling” (p. 212). These forms of ruling create forms that in themselves can influence, if not structure, social actions and relations. To give but one example from a typical research grant, one must declare the “principal investigator” for a research project, even if the project’s production and conception is the work of two equal partners. In every subsequent form, the question will be asked if you were a “P.I.” or “co-applicant,” creating stratifications and hierarchies of power that may run counter to a project’s goals and ends. Likewise, grant forms place the concrete “results” of a research project in an order that suggests a hierarchy, with the single-authored monograph and peer-reviewed publication on the top, all as ways to measure and guarantee the uniformity of standards across disciplinary and divisional boundaries.

Research-creation is a term that works across disciplinary boundaries, but in the Canadian context it has a specific history in the documents being produced within three public agencies that fund social sciences and humanities research, as well as the Fine Arts: the Quebec-based Fonds Québécois de la Recherche sur la Société et la Culture (FQRSC), the federal Social Science and Humanities Research Council (SSHRC), and the Canada Council (also federal, but focused on the Fine Arts). The FQRSC availed some of its funds to this category beginning in 2000 to acknowledge that those in the arts do social science and/or technology research, and vice versa. SSHRC followed suit shortly thereafter, and allocated a certain amount of funding to research-creation (although this fluctuates from year to year). Universities, including our own institution, have also made “practice-based” research a part of their mandates. If we consider that the texts produced within these institutional settings have played a definitional role, and continue to do so in the manner suggested by Smith (1990), then a closer critical look at what they prescribe is warranted.

The FQRSC maintains that research-creation is about creating or interpreting works of art—where “interpretation” is meant to suggest an instrumentalist or dancer
“interpreting” a piece of music or choreography, as opposed to a practice of analysis or commentary. Research-creation refers to,

research activities or approaches fostering the creation or interpretation of literary or artistic works of any type. Within the context of this program, interpretation is analogous to creation and cannot be understood as an intellectual approach of analysis of a creator’s work or achievements. (SSHRC, 2011a)¹

The document goes on to state that to qualify for research-creation, the researcher must be able to demonstrate that they have held a “sustained creative practice,” that the works must be unpublished “productions,” and that they must contribute to the renewal of the discipline in question.² This renewal of one’s discipline occurs through positing some form of innovation that can be assessed through a process of peer-review that will acknowledge what is original about the project along with its potential to foster student training and enrich “national and international cultural heritage” (SSHRC, 2011a).

SSHRC, which modelled its definition from the precedent set by the FQRSC, defines research-creation as a research activity or “approach” that “forms an essential part of a creative process or artistic discipline and that directly fosters the creation of literary/artistic works.” (SSHRC 2011b) In this bureaucratic definition, however, the terms for peer-review are clearly laid out and model themselves on the typical review criteria found within any academic journal. The research-creation work must address clear research questions, offer theoretical contextualization within the relevant field or fields of literary/artistic inquiry, and present a well-considered methodological approach. Both the research and the resulting literary/artistic works must meet peer standards of excellence and be suitable for publication, public performance, or viewing (SSHRC, 2011b). These definitions seem intent to set up criteria adopted from conventional research assessment methods for application to research-creation. The specific uniqueness of research-creation is not defined; instead all that is referenced is “fostering the creation or interpretation of literary or artistic works.”

The Canada Council for the Arts offers a slightly different model. This institution preceded SSHRC and has traditionally provided public support to artists working in a variety of different disciplines/media. Most applicants are not academics but artists. As such, the Canada Council operates with a different notion of “research.” Almost all of the funds provided by the Council are intended to support creative initiatives. When “research” is mentioned, it is generally conceived as an investment of time and resources in the exploration of possibilities, concepts, and technologies involved in the production of a new work that will have some sort of public exhibition. When used by the Canada Council, research-creation “addresses artists whose practice combines experimentation, exploration, and research in conjunction with production” (Canada Council, 2011). Interestingly, the specific neologism “research-creation” (or in this case, “research/creation”) only appears in the Council’s film and video grant application materials. What is important from the Council’s definition is that research is situated as a part of an investigation that involves trying things out, as opposed to a gathering data, as it is often conceived in traditional academia.
Academic reflections

Academically, a bevy of works is beginning to emerge on this concept. These include efforts by those in the social sciences and humanities to define the role of creativity and imagination as intrinsic to research. While some of this work is quite recent, there is a legacy within the social sciences and humanities, from C. Wright Mills’ (1967) *Sociological Imagination* to Laurel Richardson’s (2000) important essay on writing as a method of inquiry, that asserts the primary role of creativity, imagination, and the politics of form in the social sciences and humanities.

Recent academic contributions to the debates push past open-ended definitions, and try to determine specifics. Haseman (2006) speaks of “practice-led research,” whereas Leavy (2009) employs the terms “arts-based research,” “performative research,” and “practice-led research.” Barrett and Bolt (2010), on the other hand, use the terms “studio-based inquiry” and “practice as research.” While different vocabularies are deployed, there are interesting and complimentary points made about assessment issues in each piece. One of the distinctive aspects of this recent work is the question of standards of assessment.

Brad Haseman (2006) has argued for credibility markers for research-creation, or what he refers to as “practice-led research,” that mirror values applied to any academic research:

1. That there is a clearly established problem that drives the study, usually made clear through a “research question” or an “enthusiasm of practice.”
2. That, just as the research problem and its content are under scrutiny, so too will the process of research be scrutinised. It is necessary for the study to articulate its methodology convincingly and so make it available for scrutiny.
3. That the research undertaken is located within its field of enquiry and associated conceptual terrain.
4. That the knowledge claims made from the study be reported to others and demonstrate the benefit of the study in social, cultural, environmental, or economic terms.
5. That what becomes known is made available for sustained and verifiable peer review. (Haseman, 2006, n.p.)

Haseman’s claims outline standards for the evaluation of research-creation that are familiar from traditional research assessment practices. These standards distinguish between the creation of art for art’s sake, so to speak, and the specifically different aim of creating art as a part of a program of research-creation. They assert that research-creation be recognized as a “legitimate” part of the terrain of academic practice. Although it is somewhat difficult to be sure what the last condition entails, Haseman (2006) raises the critical issue of making documentation of such work available for peer review, and simply suggests that new tools are needed. Unfortunately, Haseman’s criteria are much like the bureaucratic documents we looked at earlier, as they do not specify anything distinct about research-creation vis à vis more conventional academic research practices. His text reiterates the credibility markers typically used to evaluate any academic text, and open up these assessment methods to those engaged in practice-led research.
Leavy (2009), and Barrett and Bolt (2010) also claim that research-creation (or what they call arts-based research and studio-based inquiry) is in a crisis in terms of academic sanctioning. In their assessments, a hierarchy of knowledge-value is outlined. Creative production understood as a means to make, reflect upon, and diffuse knowledge is problematic in terms of providing “positive,” “verifiable” or “reproducible” contributions. Barrett and Bolt (2010), Leavy (2009), and Haseman (2006) all underscore that positivist, quantitative research is often defaulted to as the easiest to support in terms of grants and other forms of established acknowledgment of a research program's potential.

Quantitative research is upheld, on their accounts, as the simplest to assess with conventional metrics, followed by qualitative research, which is easier to accept when it models itself on quantitative methods. At the bottom of the knowledge hierarchy is ethnography, which muddies the waters, especially in terms of recent trends towards alternative methods of ethnographic writing (auto-ethnography, narrative, or poetry-based ethnography, performative ethnography et cetera; see Denzin & Lincoln, 2000; Willis, Muktha, & Nilakanta, 2007). Leavy (2009) and Barrett and Bolt (2010) situate their discussions of arts-based research and studio-based inquiry within this expanded, non-normative conception of ethnography. They provide specific examples and highlight methodological trends. They also sub-categorize these trends according to the artistic disciplines in question (i.e., music, creative writing, theatre, studio art, et cetera). Their common goal appears to be establishing the academic value of the disparate methods they articulate, outlining them as forms of holistic, reflexive, and engaged research.

Both Leavy (2009) and Barrett and Bolt (2010) view research-creation as a form of intervention because it is contradictory to a hierarchy of research significance that places the scientific method at the pinnacle of models for knowledge production and dissemination. At the same time, they are committed to demonstrating, like Haseman (2006), how research-creation can conform to some traditional standards of rigour (such as methodological transparency, for instance) as well as structured programs of research. Leavy’s (2009) explicit focus is on “expanding” and also “disrupting” the qualitative paradigm in social science research. She claims, “both artistic practice and the practice of quantitative research can be viewed as crafts. Qualitative researchers do not simply gather and write, they compose, orchestrate, and weave” (Leavy, 2009, p. 10). This conception fits well (in terms of family resemblances) with the notion of “research” as a form of “trying things out,” an allowance for experimentation articulated in the Canada Council for the Arts (2010) documentation discussed above. Barrett echoes this position in her elaboration of the critical and innovative potential of practice-based research to generate “personally-situated knowledge,” new ways of modelling and materializing this knowledge, “while at the same time, revealing philosophical, social and cultural contexts for the critical intervention and application of knowledge outcomes” (p. 2).

Research-creation, from this purview, has a strong potential as a form of intervention precisely due to its often experimental, processual nature. Generating situated forms of knowledge, combined with new ways of developing and disseminating that knowledge, research-creation helps reveal different contexts and methods for cultural
Barrett (2010) also operationalizes concepts such as “tacit knowledges” and the “alternative logic of practice,” drawn from Pierre Bourdieu. These are used to bring research-creation into alignment with more conventional research methods, pointing out that “un-scientific,” intuitive ways of knowing may underpin all discovery, yet, this is often systematically unacknowledged within traditional research paradigms. As Barrett rightly points out, subjective, tacit knowledges are about the feeling of “being in the game” (p. 4), where ideas or strategies emerge according to demands that present themselves in the midst of creative processes.

This understanding of the role of intuition and “feeling” presents itself as one of the strongest reasons why those who pursue research-creation are committed to the methods they promote, as it is only through working theoretically and artistically, or creatively, with their research topics that they become invested and engaged in a process that is right for them. This is arguably a central motivation for any form of research agenda, although it is perhaps even more paramount in the case of research-creation because of its emphasis on the act of creativity, often experienced as a form of play.

In her ethnographic short story *What Kind of Mother...?*, author Karen Scott-Hoy (2009) questions her reactions to the events of September 11, 2001 by describing her interactions with her youngest son in the days following the attacks. As he is playing with toy cars, she asks him:

“What’s happening?”

“The terrorists have just blown up the tourist center and the fire trucks are coming.”

I smile, but no words will come out. I want to scream, to cry out against his loss of innocence. I want singing, not sirens. ... Then, as I stop and listen, I realize he is working through and making sense of what has happened in his world through this story, this game. Perhaps if I join in I will find some answers too. (Scott-Hoy, 2009, p. 61-62)

As Barrett states, “the writing of qualitative research, as with the work of artists, is ultimately about (re)presenting a set of meanings to an audience” (2010, p. 11). Arts-based methods can be employed as a means to create “critical awareness or raise consciousness”; they are useful for “identity work,” they can help “give voice to subjugated perspectives,” “promote dialogue,” (Barrett, 2010, p. 13-15) (including extending academic work to wider audiences), and evoke (often multiple) meanings through inductive means. Again, such possibilities reinforce our claim that research-creation projects can provide powerful forms of introspection and intervention.

Despite this, by defining research-creation by contrasting it with “traditional,” “conventional,” or “sanctioned” methods, Leavy, Barrett, Bolt, and Haseman reinforce the binary thinking that is at the root of the state of affairs they are lamenting—i.e., that research-creation projects are not granted an appropriate amount of academic “weight.” This is not in keeping with the term’s multifaceted potential. Research-creation partakes
in many different types of “tradition,” such as those that stem from various artistic practices. Assessment and comparison of different types of research is challenging to begin with, but when one articulates an identity for research-creation as a form of extension through disruption, followed by sanctioned resolution (assimilation), one loses the intrinsically incommensurable qualities of the concept that allow it to intervene into the “regime of truth” of the university. This line of argument also overdetermines its other. “Traditional” scholarship becomes reified in terms of current disciplinary and methodological frameworks that are presented as more or less uncontested in terms of epistemological and ontological conventions for knowledge production.

Suggesting that research-creation can pass through credibility tests stemming from sanctioned metrics for qualitative research programs reads as a form of apologetics. It may be necessary, for strategic reasons, to work with previously existing frameworks of assessment, but defining research-creation as a subcategory of qualitative or ethnographic research risks misrepresenting the field and its potential to generate new forms of knowledge. Hybrid scholarly forms are emerging everywhere, challenging traditional academic forms of publication, especially with the move to “enhanced” types of web publication that include embedded media. Our emphasis on research-creation’s ability to challenge academic standards and criteria markers is distinct from Leavy (2009), Barrett and Bolt (2010) and Haseman’s (2006) attempts to advance the field within the folds of academic legitimacy.

Family resemblances
As our initial discussion indicates, “research-creation” describes a conglomerate of approaches and activities that incorporate creative processes and involve the production of artistic works in the context of academic programs. We are interested in articulating and elaborating the field by developing distinctions, but within the methodological arena of research-creation itself, as opposed to defining it against conventionally sanctioned qualitative/quantitative research, whatever one might take these latter terms to mean. Our theoretical approach to the subject involves discussing four valences of “research-creation” as a term. In so doing, we are not trying to define the essence of the idea, but rather understand our typologies in Wittgensteinian terms as “family resemblances.” Wittgenstein’s *Philosophical Investigations* (2009) is organized around a set of aphorisms. Aphorisms 66, 71, 75, 81, 89, 90, and 100 are particularly germane for an understanding of the term “family resemblance.” Interestingly, Wittgenstein uses the example of “games” to discuss the idea of family resemblance, asking the question, what is it that makes activities as different as chess, baseball, or charades identifiable as games? Rather than offering an explanation of what such activities all have in common, the idea of family resemblance asks one to pay attention not only to what is akin, but also what is different. By so doing, “we see a complicated network of similarities overlapping and criss-crossing: similarities in the large and in the small” (Wittgenstein, 2009, p. 36e).

Wittgenstein offers the idea of a family resemblance as a description of this form of networked relationship:

> I can think of no better expression to characterize these similarities than “family resemblances”; for the various resemblances between members of a family—build, features, colour of eyes, gait, temperament, and so on and so
forth—overlap and criss-cross in the same way.—And I shall say: ‘games’
form a family. (2009, p. 36e)

The term family resemblance is distinct from the Platonic concept of a philosophical
essence. In searching for family resemblances, we are looking for what makes particular
phenomena similar, as well as how they are distinct, but yet of the same class.

For Wittgenstein (2009), there is an acceptance that concepts have “blurred edges”
and that clear distinctions are not possible (p. 38e). Given that a concept has “blurred
edges,” how might one describe it at all? To do so, Wittgenstein suggests that we need
examples to further understanding and analysis: “And this is just how one might ex-
plain what a game is. One gives examples and intends them to be taken in a particular
way” (p. 38e). In giving examples, one does not furnish the essence of something, or
a definition that is clear; rather, one must deploy examples, make them perform. Ex-
amples are not a substitution for an understanding of a phenomenon or a thing, but
are integral to explaining.

I do not mean by this expression, however, that he is supposed to see in those
examples that common thing which I—for some reason—was unable to for-
mulate; but that he is now to employ those examples in a particular way.
Here giving examples is not an indirect means of explaining—in default of a
better one. (Wittgenstein, 2009, p. 38e; emphasis in original)

Wittgenstein’s insights on the use of examples are part of a theoretical under stand-
ing of the ontology of “research-creation” not as a thing, but as a concept with blurred
boundaries. Research-creation is not a fixed methodological approach. It refers to an
important variety of different possibilities. Wittgenstein’s considerations guide our use
of examples in terms of research-creation. The four modalities we discuss below are
ways to organize our collected examples, although other categories or examples could
surely be developed.

In delineating four modes within the set of “research-creation,” we call attention
to the moment that is in between, the conjunctive moment that points to the articula-
tion of these two terms one to the other. In this, we draw attention not to the two pri-
mary terms; instead, we see them as mutually constitutive in the examples we
innumerate, in terms of how they are imagined in relation, and how this enactment is
formed and performed. It is also through the conjunction of its two component terms
that research-creation can be perceived as a potential form of intervention. A research
project that produces creative outcomes and/or employs creative processes gains access
to a broad series of potential audiences and contexts of dissemination. The possibilities
provided by the various artistic media that can be deployed for research-creation allow
research components to be performed and disseminated through alternative ways of
knowing as well as employing a variety of different forms of citation and/or attribution,
extending de Garis’ (1999) insight regarding performative ethnography, namely that
one valuable way “to know” is “to do.”

Our perspective on research-creation has connections to recent discussions in the
philosophy of method that, to quote John Law (2004), deal with “mess in social science
research” (p. 2) as well as the “performativity” of research understood as a practice of
“enactment.” Drawing on Annemarie Mol’s (2002) insights into the ontology of med-
ical practice and her notion of “the body multiple,” as well as Latour’s (2005) re-articulation of the concept of “assemblage,” Law (2004) contends that what we commonly refer to as “objects of research” are enacted through performance (p. 55). Stressing difference and multiplicity, rather than unity, resemblance, representation, or fidelity to the real, Law (2004) also highlights that social science research, and methodology as enactment, is inherently a messy business. The relations between things are uncertain “sometimes vague, difficult and contradictory” (p. 55). The idea of “enactment” is what separates both Mol (2002) and Law (2004) from Latour’s (2005) recurrent use of the term “construction.” The social is not merely constructed in social science research; it is also presented in the same way that an instrumentalist interprets a musical score, an actor delivers her lines, or a dancer enacts a piece of choreography. In thinking through enactment, Mol (2002) writes that “like human subjects, natural objects, are framed as parts of events that occur and plays that are staged. If an object is real this is because it is part of a practice. It is a reality enacted” (p. 44).

The four subcategories
In the following section we elucidate different articulations of research and creation: “research-for-creation,” “research-from-creation,” “creative presentations of research,” and finally “creation-as-research.” In identifying these conjunctures, we are attempting to open up the term “research-creation” and to offer these reflections as a starting point for defining methods of potentially rigorous academic inquiry that are essentially multifaceted, heterogeneous, and sometimes even contradictory. We are not claiming that these are mutually exclusive categories, only that they stand as useful terms for elaborating discussions around different approaches to research-creation.

Research-for-creation
While it seems somewhat misleading to separate initial research phases from production phases (due to the implied and fallacious assumption that moments of research are not part of “official” production phases), it is important to acknowledge that any creation, even (and especially) creation that is pursued as a type of research in and of itself, involves an initial gathering together of material, ideas, concepts, collaborators, technologies, et cetera, in order to begin. This gathering is “research” in the same way that reading through recent journal articles, tracking down important references, or conducting interviews are key elements of producing various academic contributions to knowledge, conventional, research-creation, or otherwise. The gathering is research because it is directed towards a future “revealing,” enabled through an artistic perception of technology as a practice or craft (or “technē”) (see Heidegger, 1977).

In the 2008 project, Digital Cities, for example, the research team, who were attempting to create a location-based experience for a Montréal park, spent months finding archival materials that could be processed and uploaded to a database that would then be accessible via a set of GPS coordinates when viewers walked through that space. Research in this sense was about the potential content for the location-based experience; but, it also involved research on the Hewlett-Packard technologies that were used to build a platform that housed and delivered the image-text-sounds. The learning and research involved occurred prior to the production work. In a project titled Radio Bicy-
clette, media artist and producer Katarina Soukup created a pirate transmitter and broadcast re-mixed fragments of the live radio coverage of the invasion of Czechoslovakia during the Velvet Revolution of the 1960s. In both examples, careful research into the history of the themes and locations concerned, drawn from archival sources, along with interviews with participants, and analyses of the technologies and terrains employed were integrated into what was displayed, and used to make informed choices about what images or sounds were included and excluded. Even though the research phases were prior to production in these instances, gathered data continued to inform integral ethical and aesthetic choices throughout the production process.

“Research-for-creation,” then, is meant to connote this type of initiative and can include literature reviews, the tracking down of precedents for one’s creative ideas, the articulation of a cluster of concepts, as well as trying out different prototypes or iterations. It is also worth mentioning that collaboration (which can occur in any of the four modes we are outlining) is often a powerful component of research-for-creation initiatives, where participatory design and friendship-as-method (Tillmann-Healy, 2003) can play significant roles in terms of setting the creative goals of a project. One keeps track of progress over time during research-for-creation phases to allow an ongoing iterative process of experimentation, and of trial and error to take place. From this attention to process, different potential outcomes may emerge at any stage and diverge from the initial “research-plan.” Too much emphasis on a “first A (research-for-creation) then B (streamlined production)” approach can stymie creative spontaneity and research freedom. In addition, it is important to remember that the “result” of initial research-for-creation may not be a full-scale production of a final product, but may remain an experimental prototype.

Research-from-creation
Research is not only part of developing art projects that then stand on their own; rather, performances, experiences, interactive art works, et cetera can also be ways of generating research data that can then be used to understand different dynamics. The use of such research information does not simply come at the end of the process to “evaluate” the effectiveness of the work; instead, the work itself can be used to generate information on user-responses to help build the project in question, as well as future initiatives. In this case, there is a form of iterative design or testing that involves the participation of individuals or groups who may be an intended audience. For example, in developing the location-based project The Haunting (conceived as a prototype for a simple “game” of ghost capture in Parc Mont Royal), researchers from the Montreal-based Mobile Media Lab (including Sawchuk) set up a sub-team to work in tandem with the designers and engineers to document responses to the work as it was being developed. As the narratives for the project were being created, the team moved from the design board into the actual location in order to see if the interface and design were comprehensible. The iterative testing that came out of this led to direct adjustments of the narrative sequences, which were determined to be too long once they were played back in situ. The experience and knowledge gained from these collaborations and trials were used to develop a series of suggested research protocols and prac-
tices for engineers, artists, and designers engaged in location-based media-making (Crow, Longford, Sawchuk, & Zeffiro, 2008).

To give another example, research-from-creation can also involve analyzing different dynamics that flow from a game or creative project and may lead to the writing of more formal academic papers that are based on an experimental art practice. In their various interactive projects that use LED lights that communicate with “users” who interrupt their signal frequency, media artist Nell Tenhaaf works with computational linguist Melanie Baljko on programming their installations to generate data for later study. Baljko, from her disciplinary perspective as a computer scientist, is interested in the systematic gathering of observational information of user interactions with the art work that will allow her to observe and understand a host of non-verbal gestural engagements from the stand point of computational linguistics. For Tenhaaf and Baljko, their installations operate as both artworks and as vehicles for fundamental questions about the nature of human interaction and non-verbal forms of communication (Sawchuk, 2008a). To give a final example, artist Nicola Feldman-Kiss, in collaboration with scientists at the National Research Council of Canada, used the scientific scanning technologies at the NRC to produce the exhibition Mean Bodies. For Feldman-Kiss, the research into 3-D scanning was a technical exercise to create an art work, but it also produced a valuable data set of a complete human body—her own—that is now “owned” by the NRC who can use the information for their own research projects (Sawchuk, 2008b).

Pushing the limits of different technologies, developing paths of exploration and experimentation—this leads to the development of new research questions, many of which have archival, historical, theoretical, methodological, and scientific facets associated with them. These discoveries can lead back towards more “conventional” forms of research and produce new hybrid forms of scholarship, but such a process also creates new conundrums for artists who are no longer simply doing art for art’s sake, but as a mode of data generation and study. In entering into the world of institutionally sanctioned research and new funding opportunities, artists who work with human participants are now required to fill out complicated ethical protocols and consent forms for projects that often mystify university ethics committees and transform the liberty that artists once enjoyed. Questions regarding compliance with institutionalized research ethics protocols are extremely important in terms of the academic future of research-creation. These issues are currently undergoing much debate, especially in Canada, where the commission governing ethical research protocols—the Tri-Council, made up of SSHRC, the Canadian Institutes of Health Research (CIHR), and the Natural Sciences and Engineering Research Council (NSERC)—has issued (December 2010) an updated version of its regulations that excludes creative practices from the purview of “research,” simultaneously exempting such practices from ethical protocols while at the same time devaluing research-creation as a sanctioned academic method. Article 2.6 reads: “Creative practice activities, in and of themselves, do not require REB [a research ethics board] review” (Canadian Institutes of Health Research, et al., 2010, p. 20). Creative practices are summarily defined as processes through which artists make or interpret works of art, as well as study these very processes. REB review is not necessary,
but such creative practice activities “may be governed by ethical practices established within the cultural sector” (Canadian Institutes of Health Research, et al., 2010, p. 20).

Further muddying the waters, however, is the exception to this exemption, briefly mentioned by the Tri-Council in terms of creative processes undertaken as explicit parts of research-programs. “[R]esearch that employs creative practice to obtain responses from participants that will be analyzed to answer a research question is subject to REB review” (Canadian Institutes of Health Research, et al., 2010, p. 20). No details, however, are provided in this 200+ page document around specific protocols that could apply to artistic works, leaving in limbo the universities who rely on this publication to set their own frameworks in terms of ethical compliance.³

Creative presentations of research
The third articulation between research and creation that belongs in our cluster of “family resemblances” is the presentation of traditional academic research in a creative fashion, which has been mentioned throughout this article. The explosion of academic genres in recent years is one clear indication of the liveliness of this dimension of research-creation across a number of disciplines, including sociology, cultural studies, anthropology, and communications and media studies. In her excellent paper “Writing as a Method of Inquiry,” Laurel Richardson (2000) details the many ways that academic genres have been challenged through creative writing practices that pay close attention to media poetics. Richardson (2000) calls this form of inquiry CAP, or creative analytic practice, and says that experimental modes of writing not only form end results, but also occur while a project is in progress. Knowledge is not separate from the practice of inscription; indeed, it is through the ways we iterate our projects back to ourselves that we come to know. In the humanities and social sciences, academic performer Jackie Orr (2005) writes in a manner that uses collage and language to convey the panic disorder she describes. In conference presentations, she uses audio tracks with samples from news broadcasts timed to punctuate, underscore, or work in juxtaposition to the ideas spoken.

The desire for academics to engage with more poetic and evocative forms of expression poses a new situation for academic journals that now must contend with new genres and online forms to convey work differently. For example, RESmedia offers critical writers the opportunity to create short pieces that go online and have sequences from the films or images under discussion embedded in the text. The Canadian Journal of Communication has made room for the incorporation of film, image, and sound into the online version of the text. Vectors, as previously mentioned, takes the presentation of academic materials one step further: the work must only be able to exist in online form. Likewise, dissertations, such as Andra McCartney’s (2000) Sounding Places: Situated conversations through the soundscape compositions of Hildegard Westerkamp, or Chapman’s (2007) Selected Sounds: A collective investigation into the practice of sample-based music were primarily meant to be experienced on CD-ROM and as HTML code (please see bibliography for corresponding URLs).

In the case of academic regulation, the norms are increasingly and paradoxically both looser and stricter. Margins, type, and font sizes are standardized. Archival paper must be used. There is a certain prescribed manner for presenting images as “figures”
to merely illustrate the text. Nowhere is the illustration, sound file, video clip, et cetera given a place to be considered primary, and most institutions are at loss with how to evaluate or archive this material.

**Creation-as-research**

This is perhaps the most complex of our categories, as well as the most controversial. “Creation-as-research” involves the elaboration of projects where creation is required in order for research to emerge. It is about investigating the relationship between technology, gathering and revealing through creation (following Franklin, 1992, and Heidegger, 1977, where “technology” connotes a mind-set and practice of crafting as much as it does “equipment”), while also seeking to extract knowledge from the process. Research is more or less the end goal in this instance, although the “results” produced also include the creative production that is entailed, as both a tracing-out and culminating expression of the research process. It is about understanding the technologies/media/practices that we discuss as communication scholars (for instance) by actually deploying these phenomena, and pushing them into creative directions. It is a form of directed exploration through creative processes that includes experimentation, but also analysis, critique, and a profound engagement with theory and questions of method.

Chapman’s doctoral dissertation on sample-based music (*Selected Sounds*—mentioned above), a collaborative production of a compilation audio CD featuring works by himself and six other sound artists, provides an example of creation-as-research. Each artist contributed an audio sample to the project, agreeing to compose a piece of music using only the seven collected sounds as source material. Every artist was interviewed about their practice of sample-based musical composition, views on the definition of “sampling,” technologies they habitual employ and the specific processes they adopted for their contribution to the project.

The collaborative production in this case not only provided a foundational point of reference for the project’s ethnographic component, it also explored and demonstrated the potential of sample-based musical practices for listeners to the audio CD. In this way, the process of collaboration produced “research-from-creation.” In addition, the “results” of the research were presented in a creative, alternative format. This combining of different modes of research-creation is not that surprising; as stated above, our four categories are not mutually exclusive. But there is a crucial, if somewhat subtle, distinction to be made in this instance. Fundamentally, the process of collaborative sampling acted as a central form of research for Chapman himself, allowing for a body of original and focused artistic work to be realized, analyzed, contextualized, and theorized—providing a rich, multi-modal learning experience. In the course of making the work, the different possibilities and potentials inherent in heterogeneous sample-based musical practices (which were still recognizable as such due to their family resemblances) were revealed. This is also what defined the project as an intervention, by demonstrating a different model of research scholarship in the field as the first PhD research-creation project in Communication Studies in Canada.

By articulating connections between practices of writerly quotation and sampling in electronic music (see also Chapman, 2011), the project accomplished a production of theoretical knowledge not through, but as creation. In so doing, it highlighted the
creative aspects of scholarly writing at the same time as it demonstrated the thoughtful, reflective, theory-laden processes of audio sampling. Chapman’s current FQRSC-funded research-creation project *Radio Activités: une généalogie du Theremin, les Ondes Martenot et l’Orgue Hammond* seeks to outline and articulate the histories of three early forms of sound synthesis technology, the Ondes Martenot, Hammond Organ, and Theremin, through archival, interview-based and discursive research, but also through creation-as-research.⁴ By actively seeking out recorded music featuring these instruments, as well as working models of the instruments themselves, the idea is to create new works that sample and remix the characteristic sounds of these devices into contemporary compositions. Understanding how these instruments work(ed) and their key roles in the historical development of sound synthesis as a practice is significantly enhanced through this form of hands-on creation-as-research. What is lost or gained, for instance, through the use of a keyboard controller for sound synthesis? The Theremin has no keyboard and is played by waving one’s hands in front of two radio antennae, one controlling pitch, the other, volume. The Hammond Organ features a keyboard where sounds are switched on or off at a consistent volume through the depression/release of different keys. The Ondes Martenot features a small keyboard, a ring and wire (“la bague”) for sliding between all the notes of the chromatic scale, as well as a special button (the “touche d’expression”) that activates the tones selected through the keyboard, or “la bague,” with a subtle variability of volume, similar to a bow on a stringed instrument.

Such differences in terms of technology/technique and their impacts on the history of sound synthesis can arguably only be fully understood and demonstrated through playing the instruments in question. Such engaged, performative research also encourages the recognition of links to other forms of electronic sound production/control, such as the similarities between the Martenot’s “touche d’expression” (invented in 1928) and a contemporary DJ mixer’s “cross fader” central to the practice of “turntablism” (see Snapper, 2004).

The uniqueness of creation-as-research vis à vis our other categories exists in its interweaving of theory and practice. In a recent discussion on this issue, performance artist and theorist Natalie Loveless beautifully expresses a reading of our position in the following way:

> I am interested in thinking the theory/practice relation in terms of non-hierarchical asymmetries of difference. That is, I want to explode our thinking inside the categories “practice” and “theory” such that these each become subservient to a multiplicity of articulations; to read the practice in theory and the theory in practice a little bit the way Georgio Agamben posits his ethics of the Moebius strip: as differential only in the context of a particular moment of production. I want what counts as “theory” and what counts as “practice” to be rendered bankrupt at binary oppositions, but not through unity, though a situated complexity. (Loveless, in email correspondence with Chapman, November 25th, 2010).

Whereas research-from-creation involves an iterative process of going back and forth between creation and reflection or knowledge development, creation-as-research
redefines the very concepts of theory, creativity, and knowledge. It is a hands-on form of theoretical engagement at the same time as it acknowledges the processes of analysis and articulation of new concepts that are potentially part and parcel of artistic creation. Knowledge is produced as creative work, and not simply through their analysis and interpretation. It is in this sense that such creative work can be understood as a strong form of intervention, contributing to knowledge in a profoundly different way from the academic norm. This carries epistemological implications. Creative productions constitute knowledge in a different, but culturally equivalent, way to other forms of transcribed research findings, such as academic journal articles, scholarly books, mathematical formulae, research reports, studies, theses, et cetera.

There is also an ontological dimension to the creation-as-research mode/category. “Creation-as-research” is also “creation-through-research,” in terms of expanding what “is” in the world by revealing new layers, permutations of reality, or “experiences to be experienced.” This is a funny way of saying what Heidegger explains, also somewhat incomprehensibly, when he argues that our use of things brings out their “thingness,” meaning all that “is” (i.e., Being with a capital “B”), can only be brought into greater degrees of “unconcealment” by being employed or deployed in “hands-on” situations, in addition to being analyzed and interpreted (see Heidegger, 1975, 1977).

Through research (i.e., interpretation, analysis), through creation (i.e., deployment, hands-on engagement), the very phenomena we seek to explore are brought into being in the first place. Soundscape studies, for instance, stands out as a strong example of this trend, where a research field is constituted in the process of studying it, both in terms of “theory” as well as “practices” of listening to, recording, and composing “field recorded” sounds.

At what point does an idea become a “thing”? How does “research” contribute to such a becoming? Is this creation? What are the different ways that reality can be “enacted” (to borrow again from Mol)? With the “creation-as-research” category, there is a risk that these sorts of questions could be left unaddressed. The research is self-consciously creation and vice versa. Case closed.

This is often fine. Not every research-creation project needs to address the question of “what research creates?” But if the concept is to have purchase outside of academic pedagogical or funding frameworks, it needs to be pushed into these types of ontological and methodological debates (understanding these last two terms as deeply linked). We would submit that it is this intent to “reveal” new things (i.e., the exploration of the boundaries of what can be created through research, as research) that unites research-creation with other forms of scholarly research, much more than the putative co-applicability of sanctioned credibility markers and neoliberal metrics for research achievement.

**Conclusion**

Clearly, these categories are not easily separated, and each is connected to the others. Further, they do not merely occur in a linear sequence, but can be ongoing, and happen simultaneously. Yet, given our experiences as practitioners, teachers, and academics, we have felt for some time that a discussion of their distinct dimensions was necessary to counter the many misunderstandings and mystifications attending research-cre-
We are also aware of an irony at the very core of this article, which has taken a traditional academic tone and style, to argue for the uniqueness of research-creation as a complex approach and intervention into the way knowledge is constructed and understood, and to interrogate the present and potential relations between creativity and scholarly practice. This is deliberate, at least in this instance. Finally, our “approach” and construction of a set of inter-related categories is not meant to be definitive. It is intended to invite a playful consideration of the family resemblances between these different aspects of what is often condensed together into a hyphenated term, research-creation.

Our critique of Haseman’s (2006) “credibility markers” above, as well as the bureaucratic literature we survey, concludes that such initiatives assert conventional, sanctioned assessment criteria as sufficient for research-creation. Such a perspective, while thought-provoking and in many cases apropos, is nevertheless insufficient to accommodate the heterogeneity of research-creation practices. Evaluation of research-creation projects in academic contexts is not intrinsically any more or less difficult than other assessment standards, both quantitative and qualitative; we simply have fewer precedents to work with in terms of fair and effective standards for peer review. This state of affairs is changing, however, as more participants in the field of research-creation emerge. To cite one statistic, Elkins (2009) suggests that at the rate exemplified in 2008, 127 creative-art PhD programs might well be established in the U.S. and Canada by 2012.

But there is also another family resemblance specific to much research-creation that suggests a particular angle worth noting in this regard, based around the concept of “intervention.” Questions such as: “Does/will this project contribute to knowledge?”, “In what way?”, “What are its identifiable outcomes?” et cetera, can often be usefully elucidated (and potentially challenged) by asking, “On what level(s) can this project be identified as an intervention?” This shifts emphasis away from over-valuing “deliverables” and moves towards dynamic evaluative mechanisms based in conceptions of “peer review” that de-emphasize the significance of quantifiable research outcomes, and focus instead on recognizing the mechanisms, contexts, communities, and methods through which a project strives to make something happen; in other words, to produce results that are not necessarily material or textual, but that occur on multiple planes, including the reactions of a beholder of a creative work, the future efforts of a community member and/or collaborator affected by the process of bringing a project to fruition, or the technological results and/or residues. The “ideal” peer reviewer is aware of the stakes at play within a particular intervention, and can reflexively respond to how well or poorly a project articulates itself vis à vis those stakes. Criteria such as social, cultural, environmental, or economic benefits, the identifiability of a central research question, the articulation of a conceptual terrain, et cetera, are often completely germane to such assessments. But at other times, aesthetic components, the position and role of an intended audience, or the calling into question of traditional conceptions of knowledge mobilization are more important considerations.

The upshot? Research-creation projects must be assessed with a rigorous flexibility, and without resorting solely to putatively objective evaluation criteria. Peer review
practices need to be reflexive and consistently scrutinized to insure they are not ossifying or contextually inappropriate. Reviewers must be selected who can recognize the terrains upon which a project intervenes, and speak to these considerations in their deliberations. Ideally, such reviewers will be invested in research-creation themselves, either as artist-researchers or scholars of new academic methodologies. By the same token, projects that do not problematize or question their own methodological presuppositions and choices, and/or which are largely “illustrative” or overly focused on deliverables as stand-alone justifications for research-programs are likely poor models of research-creation. This is not to say that all research-creation projects should be judged on process alone; but without investigating and questioning one’s practices, theoretical framework, or choice of methodology, one risks creating work that relies solely on its own “integrity” to justify its contributions to knowledge/culture/history, et cetera. This is to take refuge in an “art for art’s sake” attitude that fails to acknowledge and/or investigate one’s choices, style, training, influences, collaborators, et cetera, as impacting (and in many ways legitimating) one’s idiosyncratic creative production. Judging whether or not a work falls into such an anti-intellectual framework is one of the tasks facing a peer reviewer of research-creation work. It is our hope that the four categories we have enumerated in this paper will aid in making such determinations less ad-hoc.

As we mention in our introduction, research-creation can be read as a form of intervention into the “regime of truth” of university-based research. In outlining the myriad different ways in which this is the case, our goal has been to challenge the normative frameworks that have traditionally structured academic contributions to knowledge, disrupting the reigning paradigms for qualitative and quantitative methodologies in the process. As a form of cultural analysis, research-creation partakes of the spectacle of the work of art and its demonstration of alternative frameworks for understanding, communicating, and disseminating knowledge. This is also what defines research-creation as an epistemological intervention on the level of academic methodology. But each and every research-creation project also carries the possibility of acting as an intervention in its own right in terms of the specific fields of inquiry, practice, history, et cetera in which it is embedded. The breeching of scholarly form and decorum that is intrinsic to much research-creation work is a consequence of the specificity of each project in terms of its own aims, audiences, and the artistic media employed. Our consistent provision of examples throughout this article has been with this in mind: the family resemblances amongst the projects we have cited are notable in terms of mapping out the terrain of research-creation, but these features can only be recognized through a corresponding acknowledgment of the significant differences that hold amongst all our case studies.

This heterogeneity is precisely what makes research-creation problematic in terms of traditional metrics for knowledge production. By breeching the “regime of truth” that is perceived to operate within the setting of the university, research-creation demonstrates the constructed nature of that regime in relation to any form of scholarship, its privileging of quantitative methods of knowledge production, the institutionalized and bureaucratic reality of funding opportunities, and the conservatism of many publication
venues. Research-creation operates in contrast to the dominant academic paradigm. But paradigms are mutable and have the potential to grow, shift, or even be overturned when alternative technologies, practices and anomalous discoveries accumulate to the point where new epistemological and ontological foundations present themselves in flashes of insight. Initial acceptance of the academic value of research-creation having already been achieved, we must now turn to the task of elaborating new academic paradigms of knowledge production and dissemination. This article has been crafted with this open-ended goal in mind.

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Notes
1. This is SSHRC’s translation of the original French text, which reads as follows: “les activités ou démarches de recherche favorisant la création ou l’interprétation d’œuvres littéraires ou artistiques de quelque type que ce soit. Dans le cadre de ce programme, l’interprétation est analogue à la création et ne peut être comprise comme une démarche intellectuelle d’analyse d’une oeuvre ou des réalisations d’un créateur” (FQRSC, 2011).

2. “A research-creation approach in arts and letters depends on the exercise of sustained creative practice; on intrinsic reflection on the development of previously unpublished works or productions; and on the dissemination of these works in various forms. A research-creation approach must contribute to disciplinary development by a renewal of knowledge or know-how, and innovations of an aesthetic, pedagogical, technical, instrumental or other nature” (SSHRC, 2011a). This is a translation of the original French text, which reads as follows: “Une démarche de recherche-création en arts et lettres repose sur l’exercice d’une pratique créatrice soutenue; sur une réflexion intrinsèque à l’élaboration d’œuvres ou de productions inédites; sur la diffusion de ces œuvres sous diverses formes. Une démarche de recherche-création doit contribuer à un développement disciplinaire par un renouvellement des connaissances ou des savoir-faire, des innovations d’ordre esthétique, pédagogique, technique, instrumental ou autre” (FQRSC, 2011).


References


