what’s at stake?
compelling events &
symbolically charged gesture
in collective events

spiral argument
Event
Representation (language)
Performance
Technology of Performance
Concepts (≠ representations ≠ abstractions)
Event’
Representation'
menu

1 What’s at stake?
2 Thick experiments in the wild
3 TML as laboratory + atelier
4 Context: recherche-création policy
5 TML as a transversal machine
but non-scientistic! pre-mature dimensioning
measurement problem -- to a hammer everything is a nail
you see what you expect to see
what’s at stake:
? what is the human?

what's at stake?
Event
Gesture
Ethico-aesthetic Play
Tissue and Molecular Biopolitics
Given technologies: realtime media, wireless sensors; theater
Reaching far outside computational/digital/new media arts
  Dance, movement, textiles, musical performance, experimental theater
  Public spaces, urban design
  Science studies, philosophy

conditions of event
Face to face in a common space
≥ 3 people
A-linguistic
Thick
Not pre-orthogonalized, no model
Reality = Potential + Actual
Material Symbolic and Embodied
  (vs Formal, Disembodied, Cognitive, Informatic)

so what's a space?
Spaces of enactment
  Geertz thick description
  experience
Gendlin Felt meaning
Experiential Space
Representation Space
what’s at stake:

? what is the human? ?

how to human?

ethico-aesthetic play
   event
   gesture

tissue (molecular) politics
art all the way down

*put concepts in play:*

“human” “machine”

“interaction” “program” “rule”

“information” “memory” “linguistics”

“game” “market” “design” “industry”

“body” “ego” “citizen”

...
putting in play: morphogenesis

Stengers
Petitot
Thom
Deleuze
Guattari
Simondon
Foucault
Whitehead
Spinoza
Leibniz
Heraclitus
...

+ PhD projects
* Harry Smoak
* Erik Conrad
Jen Spiegel
Christoph Brunner
* Valerie Lamontagne
* Patrick Harrop
Jhave Johnston

observers:
Thomas Jellis (Oxford non-rep geography)
Lina Dib (Rice Anthropology)
thick experiments in the wild

whole, dense, palpable, shared experience

built environment as space of experiment

events in public → art research
dual model: thick experiments
topological media lab = laboratory + atelier

CONSTITUENT
(techné)

experimental performance
electronic music
writing studies
dynamical systems
digital video synthesis
experimental fabric
experimental music
statistical physics
core: continuous approaches to materiality agency gesture process

hence, “topological”
Herb Schneider for Steve Paxton

engineering vs. media choreography

diagram of system vs.

22.1
diagram of event

phase change induced by speech and movement energy
Harry Smoak, Matthew Warne, Kevin Stamper TML 2004
experiments in lab
Ouija: Calligraphy

composite gesture: body movement, live painting, realtime video, June-July 2007

Hexagram Blackbox
vivesection architecture

Workshop on pneumatic structures & hacked toys
October 2006

Patrick Harrop
Prof. Architecture, U Manitoba

Ted Krueger
Assoc. Dean, Architecture,
Rensselaer Polytechnic Institute
Maroussia Levesque, Sebastien Speier, Harry Smoak, Erik Conrad et al.
Engineering Visual Arts, Concordia, May 2006

Blink!
applications: movement arts and architecture
movement arts &
responsive environments
magic and alchemy

with Mark Sussman
performance studies
pageant, table top theatre, animated objects, Great Small Works

2006 - present
Frankenstein's Ghosts
Frankenstein's Ghosts


* Paul Bendzsa, Milan Gervais, * Pam Reimer, * Liselyn Adam; + dancer Leal Stellick

Psul Bendzsa, Milan Gervais, Pam Reimer, Liselyn Adam, and Leal Stellick
Anne-Marie Donovan, Paul Buford
architecture & responsive environments
Shanghai eArts: E-Sea

Pneuma + TML, P. Hasdell, P. Harrop, J. Bolchover, Sha X.W.
October 12-23, Shanghai Century Plaza
Shanghai eArts: E-Sea
Pneuma + TML, P. Hasdell, P. Harrop, J. Bolchover, Sha X.W.
October 12-23, Shanghai Century Plaza

photocells tracking sun
Shanghai eArts: E-Sea
Pneuma + TML, P. Hasdell, P. Harrop, J. Bolchovter, Sha X.W.
October 12-23, Shanghai Century Plaza

2000 sheets CNC card
Shanghai eArts: E-Sea

Pneuma + TML, P. Hasdell, P. Harrop, J. Bolchover, Sha X.W.
October 12-23, Shanghai Century Plaza
canadian centre for architecture

dmx animated led light panels
nuit blanche 20th anniversary 2009
tml: sutherland, sutton, navab
CCA Shaughnessy House

External lighting from DMX animated LEDs, gelled windows.

Nuit Blanche 20th Anniversary 2009

TML: Sutherland, Sutton, Navab
macro context: recherche-création

Québec 2000
Canada 2003
Hexagram Concordia 2003-8
Québec
Fonds de recherche sur la société et la culture
(FQRSC)

to fund research by university-based artists:

“les activités ou démarches de recherche favorisant la création ou l’interprétation d’œuvres littéraires ou artistiques.... 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 œuvre ou des réalisations d’un créateur.”

to fund research by university-based artists on an equal footing seemed to be unique in the international scene

“interpretation is similar to creation and cannot be understood as a thought processe of analysis of a work or achievements of a creator”
Québec recherche-création

sustained creative practice
new production
step: a disciplinary development
fresh knowledge / technique
new forms of expression -> new style, materials, techniques, technologies used
education of students
increased recognition of interlocutors in arts & letters
add to cultural heritage

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. Ces activités doivent contribuer, du point de vue des pairs :

- au développement de chacune des formes d’expression, à la condition que les œuvres, la démarche suivie, le style, les formes d’expression, la technologie ou le matériel utilisé, les modes de présentation, le répertoire ou le style d’interprétation offrent un caractère d’évolution, d’originalité, d’innovation ou de renouvellement par rapport à l’état présent du domaine spécifique;
- à la formation des étudiants, particulièrement ceux des cycles supérieurs;
- à une reconnaissance accrue des intervenants dans le domaine des arts et des lettres;
- à l’enrichissement du patrimoine culturel québécois, canadien ou international.

[Le Comité d’étude sur le financement du secteur des arts et lettres à l’FQRSC Spring 2000]
Québec recherche-création

- La recherche-création (RC) est toute activité ou démarche de recherche favorisant la création ou l’interprétation d’oeuvres littéraires ou artistiques, de quelque type que ce soit, répondant à toutes les exigences de l’excellence et permettant une présentation publique éventuelle.

- Les chercheurs-créateurs sont les membres réguliers du corps professoral d’une université québécoise dont la tâche implique des activités de création ou d’interprétation tels les écrivains, les cinéastes, les vidéastes, les scénaristes les acteurs, les compositeurs, les interprètes, les metteurs en scène, les dramaturges, etc.

- La recherche-création (RC) est toute activité ou démarche de recherche favorisant la création ou l’interprétation d’oeuvres littéraires ou artistiques, de quelque type que ce soit, répondant à toutes les exigences de l’excellence et permettant une présentation publique éventuelle.
The term research/creation is gaining currency both in Canada and internationally. Until recently, university- and college-based artists had been treated as research “outsiders”—an exotic, and perhaps even a suspicious [sic], breed. Until the FQRSC in Quebec began funding research/creation in 2000, we were the only university sector excluded from the spectrum of funding programs intended for university research and researchers. A few hardy artist-researchers managed to piggyback elements of their research programs on Strategic grants in other disciplines—usually by suppressing important aspects of their activity and describing their practice in language (or with emphases) developed in very different disciplines.

While artist-researchers were able to apply to the Canada Council, this was often also awkward, either because the assumptions and setting at the university are different than those for independent artists (student mentoring, for instance) or because university artists were seen as intruding on the very slim percentage of the Council funds available for independent artists’ projects. At the same time, university artist-researchers are increasingly involved in interdisciplinary initiatives that cross university disciplines and may also include the participation of artists and organizations beyond the university. For these and other reasons, there is a growing recognition that artist-researchers have something very vital to contribute to the contemporary university research community.“
Alternatives: An environmental scan was conducted to identify similar programs in Canada and abroad. Aside from initiatives by the [FQRSC], there is no comparable program in terms of:

- total investments in research/creation projects ($13.4 million),
- size (an award value of up to $250,000 per project),
- scope (nearly 100 individuals from a wide range of artistic disciplines funded during the five-year pilot phase),
- and tenure of funding (three years).

Survey responses echoed the lack of comparables, but cited provincial government, university, and federal government sources as potential (though not equivalent) resources.
Hexagram
70 university-based researchers
arts, some engineering
Concordia University
Université de Québec a Montréal
later
CIRMNT McGill
individually U de Montreal
O(10m) CAD

Concordia, Engineering/Visual Arts
opened 2005
La Société des arts technologiques
tml as a transversal machine

29.1
experimental philosophy

speculative, adventure (Stengers)

appear as

artistic research

technological research

not art production

apparatus (Barad; Foucault/Agamben)

experience (Gendlin, Maturana-Varela, Whitehead...)

It is important to understand that the TML's raison d'etre is NOT to be a facility for the production of art, although we do create and exhibit media art in the course of our work in standard art venues like Ars Electronica, DEAF, galleries and performance venues (as well as more public venues). Nor is the TML's raison d'etre to be an engineering research and development lab, although the TML accesses enough technical expertise to invent solutions to any necessary technical or mathematical depth. To start the TML publishes its technical inventions as they constitute advances in engineering as recognized in the relevant disciplines (e.g., NEM, KEM, UCSD, SGI/AMN, ACM/Multimedia). For example, the continuous transmission of data needed to smoothly trace continuous gesture, led to a fundamental modification of underlying packet structure and transmission protocol. Other examples are the pattern tracking and synthesis used in WYSIWYG, and the calligraphic video work.) Since 2001, the TML has demonstrated that it can produce media/collaboration/movement art or technoscientific work that are legible and valued in their home disciplines, different than asking for these artifacts to be evaluated as "interdisciplinary" work, according to some standard. TML's core research projects pursue bundles of experimental philosophical inquiries, and to the extent that they are speculative/philosophical, they resonantly cut transversely through the relevant disciplines and practices. In fact, the work comes out sometimes as works of art, because we are after the full affective density of being experience rather than a sparse dimension. Additionally, posing the work sometimes as art also usefully clarifies what it stake with a given installation, beyond the technical means. The key aspect though is that the philosophical investigation can be articulated sometimes as speculative art, sometimes as speculative engineering, in other work, as different aspects of techne. I say speculative, because it questions the boundaries of what constitutes practice in these domains. For example in the past 2 years, inspired by the challenge to deploy these deeply processual processes in much more durable scales of weeks and years and billions of dollars of architecture, rather than milliseconds and days, and a few thousands of dollars of computational media art.

But since we equate the work is also technically speculative, for example, asking how we can make a woven tapestry sound as people approach or stroke it, as an example of continuous feedback returning to continuous, collective, movement continuously in time. This tapestry, which was constructed as tour de force of music gestures, sensing, and synthesis, with a crew of experts from three research groups (TML, Wanderley's IDMIL, and Berzowska's S.S.Labs), serves also as an apparatus for experimental philosophy.

Another example just starting up is a collaborative experimental investigation with David Morris into phenomenological inquiry, cognition or psychological or computational concepts of memory. Morris, a philosopher specializing on Husserl, Bolly and phenomenology of memory, in relation to place and body read about the TML's work in a local magazine, and approached me to see if we might work together. Although the seminar and experimental designs are still nascent, what is particularly validating is that Morris recognized the work that we were staging as being a promising way to carry out speculative experiments. We share a common doubt of our humanist practice of citing very particular references in the scientific literature the authorizing domain varying according to the decade, currently cognitive neuroscience. Aside from the commodifying such isolated references into anecdotes, a more subtle problem is that the apparatus and technique of a given psychology experiment, say, already come pre-conditioned to see certain phenomena, and ignore others. My shorthand for theory-laden observation is "you see what you expect to see." One lesson we learn from the past 4 decades of science and technology studies is that this motto may be as true of phlogiston as it is of mirror neurons. With Morris, our Memory and Place project studies how our (human) memories are conditioned by how our bodies comport in a physical built environment. We are making some of the literature (Sennett on technical individualization, Barad apparatus/collaboration, Foucault-Agamben apparatus) with an eye to construct a fresh experimental procedure that will, to the greatest extent possible, respect the radical openness and non-schematizable quality of felt experience.
The WYSIYG, OUIJA, and Memory+Place projects exemplify what I call **thick transversality**: where the intersection between the project and a given discipline (computational physics applied to realtime computer graphics) on one hand is a substantial not incidental constituent of the project, on the other it appears as a substantial contribution in the intersected disciplines (Jitter video as realtime art).
how do people affiliate with the lab

60+ affiliates in 5 years

current:
3 paid core R&D team (c/art)
5 (17) interdisciplinary PhD’s
2 (+2) computer science Masters
2 undergraduates (arts)

Students, Scholars, Artists
Who have passed through or worked with the Topological Media Lab

Georgia Tech 2001-2005
Concordia University 2005 - 2007
lab as protected space

bring prior skills
parallel studies
~one-year reciprocal commitments
apprenticeship model: roles ...

Process of acculturation: phases of learning. Of course not everyone experiences the same sequence if they've already got some of this coming in, but I think these are all important elements for the sort of art research that I would like to support.
lab as protected space

bring prior skills
parallel studies
~one-year reciprocal commitments
apprenticeship model: roles ...

intern
understudy / apprentice
experimentalist
composer-author
mentor

Process of acculturation: phases of learning. Of course not everyone experiences the same sequence if they've already got some of this coming in, but I think these are all important elements for the sort of art research that I would like to support.
roles

**intern** unlearning
cognitivism, ego-art,...

**understudy / apprentice** learning
instruments (code),
technique... (values??)
art ≠ art research ≠
engineering ≠ philosophy

**experimentalist**

**composer-author** defining research questions

**mentor**

visiting peers

**define research questions**

enroll people, peers, team as necessary
answer the "so what?"

why would others care about the work?
what's the significance?

*what, how does it matter?*

how might the work give life, not crush it?
reminder:
what does tml produce?

publications

cultural artifacts (videos, installation-events)
engineered instruments / systems (not tools)
people with creative research experience
knowledge and reputation capital

elastic family of resemblance in interest and form
protected from disciplinary filters
(amoeba/yeast, not opensource)

The TML provides an open space in which we can pursue such art research without having to constantly defend individual projects in institutional language (e.g. of disciplines, granting agencies) or in terms of the market. The Director and associate faculty or peer researchers help locate funding for groups of researchers so that individual members can pursue their work with more autonomy.

However, in exchange, we expect work of world class production quality, not student work, or class project work. This work should aspire not merely to tech art venues (such as SIGGRAPH, Ars Electronica, DEAF, Media Terra), but also to world stage or real world socially embedded situations.
reputation capital

citation practice
  domain-dependent co-authorship norms
  mathematics and humanities citation detail
  material citation (vs. design / art “originality”)
  unbounded archive
n+1 collaboration ethos
group reputation capital

first-cite, then stone soup:

free use of code or media or material from a TML project in subsequent TML project

provisos:

must name individual source (even in matter | code);

first creator must be credited in public before her/his work goes into stone-soup inside TML.
10 years ago, I built the TML to create the techniques and find the people who could realize a playspace in which one could improvise individually or collectively meaningful gestures. I realize now that the TML is itself that sort of space.