



## BANFF NEW MEDIA INSTITUTE

### Event Summaries:

# The Beauty of Collaboration: Methods, Manners and Aesthetics

The Banff New Media Institute  
The Banff Centre  
May 22- 25<sup>th</sup>, 2003

### May 21 Evening Meet and Greet Games:

#### TASK ONE

1. Pick two words out of the other container. These words describe biographies and talks from the group.
2. Find someone you do not know in the group.
3. Pair up with someone you do not know. Choose the first word you want to use. Tell it to your partner. Ask them to tell you something that they think you do not know about them yet using this word. Take turns. This can be your secret!
4. Well, the secret did not last long! Now, find someone else you do not know in the room. Tell them your version of the information based on that word that you have learned.
5. Now, come up to the flip charts and write down a sentence from the information that you learned when the secret was whispered to you.

This is the collective biography of our group.

#### TASK TWO:

1. Take the second word.
2. Find someone you have not yet spoken to yet.
3. Develop a slogan for the summit using both of your words.
4. Write it down and give it to Sara. We will review our slogans in the morning and then at the end of the event.

THIS IS OUR GROUP'S PHILOSOPHY.

HAVE FUN!

**Day One:**  
**Goals of the event with slogans**  
**By Sara Diamond**

“Collaboration” may be fast becoming one of the “C” words of the early 21<sup>st</sup> century. In the 90s, we had community, and maybe e commerce competed for equal incoherence in meaning and advanced overuse. “Collaboration” had not yet slipped into meaninglessness, but it is a very popular concept and not one that is a recent invention by any means, as you will hear through the course of this event.

Collaboration in some ways, seems to stand in for people simply working together OR creating together in a context where there is an intention to either make that relationship ongoing or create a product of that labour, or process which combines the knowledge, experience and previous understandings or methodologies that are substantively different from that which the participants or event PARTNERS entered the relationship with.

Collaboration, starting from the early 20<sup>th</sup> century on, but with long precedents in cultures where shared processes are common, is common to some artistic practice (and you will hear about that later). Artists have long worked together, found structures to collaborate creatively and challenged notions of individual ownership.

Collaboration has now become a SOCIAL value or a GOAL, within science, and within some components of the larger culture—in recognition of several things:

- 1) The need for ongoing knowledge creation and sharing BETWEEN disciplines. This is a fundamental realization that one discipline alone cannot solve problems in science for e.g.
- 2) The recognition that competition is not the only practice within economies or social processes, that coopetition sits side by side with competition in all kinds of apparently competitive environments, such as games, where participants desire communication as much as to win
- 3) The realization that some processes, such as the OPEN SOURCE creation of software accrue knowledge and ARE THE ONLY EFFECTIVE WAY to create complex products
- 4) The cultural moment of REMIX culture—i.e. file sharing and context creation by youth, artists.
- 5) The potentials of technology to facilitate large-scale ongoing relationships.

How DIFFERENT is this moment from the past? I leave that in part to your imagination.

The Banff New Media Institute has dedicated significant past time to collaboration—I want to briefly NAME these as I think they provide some valuable stages for our process over the next four days. This history provides a glimpse of some of the issues that have been part of the collaboration discussion for about ten years. In 1997 we held an event called Avatar Avatar, wherefore art thou—looking at online worlds, in particular contribution based online worlds with characters and identities. THIS WAS BEFORE THE SIMS or MMRPG's—we were trying to understand why games that involved large-scale players were still a sub cultural phenomena and what was the future of online games. I think we have seen online gaming become mass culture—and note that games are a valuable model for collaboration. These early worlds tested many of the forms and technologies and set PRECEDENTS. They were, as with much new media, research spaces, waiting for the right expression (SIMS) and adoption through matured technology. IN A SENSE WE ARE AT THAT MOMENT WITH MANY COLLABORATIVE TECHNOLOGIES.

Several years ago we held an event called EMOTIONAL COMPUTING. We looked at the ways that various cultures, with a look at Aboriginal story telling and learning processes AND participatory theatre as models for participant bases involvement in the creative process. Then, several years ago we held two twinned events called UNFORGIVING MEMORY and THE HUMAN GENEROSITY PROJECT. The first looked at the potential of databases and archives and the ways that COLLECTIVE memory had shifted, been enabled and was threatened in turn, because of the digital nature of the archive. What was of interest there (and to us) were the ways that new forms of archives were being created, how the problem of what was valuable and what not was posed with digitization and how more voluntary FORMS of memory, such as ongoing data bases were competing with official archives. The problem of who was responsible for these collective memories, what technologies were needed to sustain these is perhaps of value to us. The second event, the HUMAN GENEROSITY PROJECT focussed on Napster, open source, peer to peer and its ideology and the related economy and cultural practices that created contexts for communities and audiences to contribute to digital work. In the latter instance we noted the intense tears between the apparent individualism of peer-to-peer file sharing AND the ideology around those practices of creating a new collectivity. We were just on the brink of the emergence of massive multiplayer games and we looked at the ways that the online gaming process, with its attendant characters and communities were creating new identities, with creativity expressed in design and participation. This is a theme that we will revisit this morning and later this week.

Then, last year, we held a highly international event entitled BRIDGES TWO, with partners from USC, NRC, and U. of C. etc. This event focused on the reasons that scientists and artists choose to collaborate, the barriers and opportunities that they face. It included artists and scientists from all over the

world, and hence tried to understand MODELS of collaboration that came from outside of Western art and science as well as within. Oral cultures, law based Aboriginal experience, community responsibility, relationships to time that allow continuity rather than completion were issues. As well, the resources needed for collaboration across cultures and the ways that tools are culturally specific were key issues. The need for a shared language was and is a key question.

BRIDGES tried very hard to pinpoint methodologies for collaborations, skill sets needed, and to begin to discuss aesthetics, that is the VALUES that we bring to understanding, evaluating and judging the effects of the collaborative process and the outcome of collaboration. We began a discussion of the tools that enable collaboration and HOW to evaluate these. Coming out of BRIDGES it seemed VERY important to continue the discussion in two strands. Later on this year we will discuss how tools can or cannot be designed for cultural specificity.

THE BEAUTY OF COLLABORATION has a different focus. This is an opportunity to understand, through a variety of methodologies, the history, and social processes, technological processes of collaboration. It is an opportunity to look at the VALUES that we bring to EVALUATING collaboration and to hone our definitions and understandings. It is an opportunity to think through what the differences are between the GENIUS of individual expression and the genius of CONJOINED COLLABORATIVE EXPRESSION.

In framing the event I wrote of the contemporary moment:

When given the opportunity, humans tend to cooperate. Scientists are embracing research collaboration to share knowledge domains. Gamers collaborate in order to compete. Youth use wireless devices to create sub-culture and play. Networked computers are far smarter than individuals! Can we design “architectures of trust”? What is a computer-supported community? How does it differ or parallel physical communities? Can machines and software be designed towards an intelligence of collaboration? How does cooperation differ with mobile platforms? Are new kinds of knowledge generated that have not been accessible before? Are there new forms of expression, new identities that result? What can we learn from historical precedents such as IRC, MUDDs, media production cooperatives, artists’ collaboration, and scientists’ collaborations? What kinds of systems and tools can we design to facilitate collaboration? What are the protocols of these? Do needs differ across cultures or disciplines? Can consensus bring about beauty? How do we evaluate cooperative initiatives? Is collaboration always a positive word or value? What about individual achievement?

We will start today with a discussion of historical expressions and current models of collaboration, with a focus on the new media.

We will discuss the evaluation of collaboration, using sociological tools.

Sadly, we have lost Eleanor Wynn due to a personal emergency, but we will instead have our evening panel that looks at the differences and values in local versus distributed collaboration. We will then look at examples of and evaluation methods for scientific collaboration and return to a series of case studies. This evening we will visit the PARADICE INSTITE at the WPG—a coloration created by two artists, George Buris Miller and Janet Cardiff.

Tomorrow we will review the days and then Jeanne Randolph and I will have a conversation about psychoanalysis and its value to understanding individual and collective processes. We will dive into the aesthetics discussion considering the social aesthetics of art as well as technology.

We will then look at learning and collaboration and the tools that enable broadband experiences, We will have hands on experience creating mobile experiences as a group and TAKE a group hike and then look at the values and processes in the performance process and also look at performance AS collaboration. Our final formal day will again look at methodologies in art and science collaboration; consider the methods within technology collaboration design and then merge into remix culture. We will discuss visualization tools in specific and the collaboration process, think through games and other online collaborative communities and their values and end by thinking through the moderation process that that role in collaboration.

Finally, on our research dew e will share in exploring a dance technology that enables improvisation and collaboration, and look at research outcomes—returning to our evaluation criteria, our consideration of aesthetics and methodologies.

Our colleagues in a large-scale NSERC project who are coming in tonight and artists in the residency program will join us. We will have an open studio visit and a remix party later on in the week.

But now, I want to leave you with a framework for consideration.

Collaboration can support short and long-term goals and is a social activity. It can occur around a common project with diverse objectives for each collaborator; it can occur around a long-term project that results in a merged identity and fully twined objectives, creating new disciplines and knowledge; or it can achieve both shared outcomes and effective differentiated outcomes (for science and culture researchers, for e.g.). New media research demands collaboration between artists, scientists, computer scientists, engineers, designers and social scientists. This sense of overlapping circles of knowledge should result in a densely layered central core as well as healthy spaces of contribution. Cohesion is indicated by shared goals, a common vocabulary; a willingness and capacity to problem solve, role mobility; project durability and shared validation. Over time, these factors result in a new common identity. Conflicting definitions, values, methods

and assumptions can be at play. Yet, this very diversity may also lead to significant innovation. Creative and social experiences, as well as skilled moderation, appear to erode barriers and open dialogue. This research of process can inform the research and development of actual technologies and applications, for example shared interactive 3D design spaces or mobile wearable devices for large-scale entertainment or news contribution experiences

Demonstrate

SHARED BIOGRAPHY

SHARED PHILOSOPHY (SHOW and READ) (from evening Meet and Greet Games)

## **Day One:**

### **Summary by Sara Diamond**

My questions were about how much subjectivity and identities melded within a collaboration—different levels; different objectives, but with successful joined process and with different outcomes, all happy; highest level—new i.d. and new boundary objects; third space with joined and separate objects and outcomes. (Lyn—mutual meaningful data)--Need disciplinary knowledge as well as knowledge that is new and linking (sometimes different people). People have noted that it matters who leads the process or the time. Some processes (long-term) flip leadership roles around. In collaboration for hire, not sure that there is exactly a collaboration process.

Discussion of collaboration with computer science and arts—problem was institutional validation (discussed this several times re—funding agencies etc.) and how publishing and student knowledge works—agreed need discipline strengths and history AND new interdisciplinary knowledge.

Do What you Need to Do to Get the Job Done!

Lyn, later—problem of mutual respect.

Art and science do have some parallel modes of inquiry

Value of history of new media—needs to take into account technology history as well as aesthetics, many sources. A means of developing understandings of collaborations (Michael Century has written a thesis on formations re art and technology; Eddie on the early history; SD on collective formations and expressions; Leonardo with Banff—a series of conferences)...

Temporal quality of the collaboration process—at the same time, or facilitate pick up of earlier research by other disciplines and pass back down the chain (Lyn)—not yet means to do this.

Boundary Object—something new that is invented between the collaborators that is infused with the understanding of their conjoined efforts. E.G. Gaydar OR performance or artifact (my fave words) BUT NEW BOUNDARY OBJECT is the SUBJECT THEMSELVES!

Meal conversations:

Nugget—a condensed piece of knowledge that encapsulates, without the weight of context, the key learnings of the research, expressed in a way that the collaborator understands, or that meets their needs.

Evaluation—gift of sociology is HOW DO WE KNOW THINGS

Wary of evaluation without evaluating IT as a practice—methodologies, tend towards ethnography where you do not KNOW the outcomes of the adoption of technology by a subculture, for e.g. rather than assuming it.

New goals—friction, boundary objects, intimacy, heroics (suffering)—attitude of self study—reflexive outlook, how ALL gained in production of knowledge, how knowledge represented, read the objects backwards

INVERSE SYNECTITY (reverse engineering of knowledge)

Need to look at the network throughout which knowledge flows, not just the knowledge itself.

ELLABORATION (our boundary object)—Evaluation in the context of the contingent collaborative process.

History—function of history is to provide context, weight of discourse surrounding a practice, places where practices have started together or join (e.g Ben's comment on weight of art historical aesthetics being a specific versus science knowledge)—though I would argue that science aesthetics and methods are present as well.

Collaboration by new media artists, a number of patterns in new media:

Create infrastructures through collectives (acknowledge that control of material base requires collective action and use). I.E. create actual formations and related virtual and physical outcomes

Create critical content or contexts versus dominant new media forms (e.g. RTMark, irrational.org, AMEX, Negativland)

Listserve

Create software or other tools—this then becomes a committed practice--

Mongrel

In building a collective memory (e.g. deep data base collaborations, re Latin America)

In creating enactments and re-enactments (e.g. Aboriginal work re Palace)—shared sense of history

Specific aesthetics—embeds critique of the original design aesthetic; engagement based (I am in this therefore I am engaged; improvised)

FORMS (aesthetics) have politics. Aesthetics are about values—both physical perceptions and how trained (cognitive) and intellectual. Social aesthetics...

Mapping Project (Design Institute)—find a space of knowledge thick enough to accommodate different practices, local and distributed knowledge. Value of in situ work and the ways that collaboration enriches practice when it's not a constant.

“A controlled reality that they are proud of” as goal of design summer experience, but maybe a good way of thinking about the objects that arise from the chaos of collaboration.

Role of SHOWING outcomes—clear to Design Institute (have deliverables) clear to Chris and Ben—public participation and presence drove endurance and emotion.

RE-ENACTMENT as a method of understanding PAST collaborations, and inventing the NEW.

Dana—discussion of why companies should collaborate with artists—indicated how artists have been the source of invention that then gets engineered.

There are many arts and many sciences. There is a space (Alan D's diagram) where art, science and engineering have conjoined practices in the middle. Visualization as a means—cross-disciplinary in nature, sexy and fundable, means to see (dominant sense), ways of bringing discovery to next level, technology more mature. Pierre's talk pointed out the ways that shared objects could be EXPERIENCED by scientists (immersion into the research) and then changes tracked—conceptually wonderful, scientifically hard to achieve. NEED tunable (easy) tools.

Problem of near photo realism—ROLE OF THE MODERATOR OR GUIDE to take people through the collaborative process! YES! Not a technology, a HUMAN.

Lyn—what needed to understand process and improve technologies--capture everyday processes, process of those involved, data and interaction. Need tools that do the same (scribble)

Metaphors: yentalectual, match-maker, dating service, social as well as knowledge kicks it off, involuntary versus voluntary is an issue (Westgrid)

Largescale, disparate, distributed, road to hell. Very different structures than small endurance collaborations.

Model—stable, long-term collaborators who bring in other experts for specialty knowledge—how adjust? (Alan and Paul). To Get the Job Done.—



Or Mark and Ben—amazing work, clearly deeply internalized parallel knowledge. Expression of collaboration/communication and its gaps—like a marriage, Mark wanting to call Ben when he hears something poignant on the radio. MERGED SUBJECTIVITY. (new boundary object)

Projects that have different expressions over time –

What is the role of the unconscious or subconscious mind in the creative process? How can that be expressed in collaboration or codified? If you try to express this (describe it) does it destroy the process itself? In physical collaboration where does the unconscious sit?

Situationist methodology—wandering through a territory (as a radical act)—engage as demanded.

Cagean method (Burroughs too) shake up the pile and see where it lands (see tonight CZ)

Catch out of the corner of the eye

Weirdness factor (can run System quirk on this)

Body as a repository of retrievable knowledge – Paul and Alan – physical and intellectual -- influences of that collaboration—EEG + Classical Sins +

Visualization + Blob computing THE SHAPE of ANGER, PRIDE.

Related to this question—how much do we need to internalize common knowledge—forms of knowledge to collaborate effectively and without having to STATE our assumptions constantly?

Masculinity of the process—horn bashing, herding, is there an alpha?

## **Day Two: Summary by Sara Diamond**

ELLABORATION (define) Evaluation in the context of the contingent COLLABORATIVE PROCESS.

This morning I woke up thinking about the world we live in—hover between complete anxiety and a total incapacity to predict or imagine consequences. SARS, Mad Cow, (Canada's economy is about to be totaled by diseases)—World Scale--Afghanistan, IRAQ—Collaboration as something that seems utopian—but also desire to understand or order human potential to not be destructive. Need to look at failures, limits, as well as successes.

Last night, after a weighty talk with Paul and Eddie about our complex and quite performative relationships to spiritual systems of altered states—(I joined a cult for a brief period of time recently) experiments with American fast track spirituality—Kabbalah versus Gerjeff and self-interrogation—talking about transcendence and how to understand this as a part of collective practice--part of

what emerged from me was the sense of commitment—how important that is—  
one of the many reasons Isabel's work resonated—

Some of the work yesterday—very optimistic, without falling into being blithe.

The morning started out innocently, me in strawberry pink, Jeanne Randolph in  
casuals. I thought a conversation about the ways that different personalities  
worked in collaborations, the ways that new subjectivities were formed, or  
transitional objects (versus boundary objects) built might enable US to open  
towards a more intimate level of conversation with each other and fast.

Prompted question about whether technology outside of selves, so that still in  
position to refuse versus cyborg.

Jeanne responded to my synthesis. That synthesis suggested that the new  
subject was the object of our work. Instead provocation—reminder of our context-  
--- Jeanne focussed on was the statement “getting the job done”, which really  
summed up not empowerment through technology but Eddie's intense concern  
that artists had to do all that they could to be able to make work in the context of  
techno-fetishism.

We spent quite a lot of time considering the job of the artist yesterday.  
Critique of technological ethos versus struggle for meaning (job of artist?).  
Jeanne. Ethical respect as the basis of collaboration. Seduction inhibits  
creativity. Consensus of delusion, illusion. Playful seduction is two way.  
Delusion of ethics within the network. Ideas of technology as actor, suggestion  
to just use the term ideology. The mind is not capable of struggling without  
conflict. Refusal to suggest that any ethical collaboration in the art and science  
spectrum. Resistance to the idea of the new. Bataille—excess is needed.

SUGGEST THAT WE CONTINUE TO LOOK AT IDEOLOGIES EMBEDDED  
WITHIN TOOLS—as networks and systems (use and design) – Raul's talk was  
fantastic for this—inverting tools of surveillance and push into tools of INTIMACY  
and control—WHAT HAPPENS TO THE IDEOLOGIES THAT ORIGINATE WITH  
THESE TOOLS WHEN THESE MOVES OCCUR? My description on the first day  
of the subversion of mobile tools by young people. Your experiences yesterday  
of your mobile as a creative tool. Highly social and networked. Yet extremely  
individual. Personal simple, constantly present instrument becomes something  
for creative communication. A PENCIL.

Work with the aura, taken up by Isabel's work later on with the body as a system  
of points, system of light (discussion of parallel spiritual traditions—west/east)

Other roles of artists—expression through tools, not creating tools. (yet  
interesting that Saul' students ALL worked as artists/designers at different levels  
of aptitude—naïve but funny) to find ways of expressing their technological

inventions ALL of which were highly social—in that they express STATES.  
Social states—transition, change.

Other roles for the artist—speak to this later.

This panel bound by the use of tools as ways of expressing social states.  
Interesting gaps around individual: individual (Saul and Raul, Alok) and social  
(FOAM/Alok-performative states)

Social aesthetics: who is the we? Designers as participants (developers as users)—dog food metaphor. Biomorph metaphors—the boundary object which is the collaboration becomes alive, own life form and dynamics. Surviving within post-apocalyptic volcanic magnum. Question of how you look at it, what angle—shifting codependencies with project accrual, some angles weak BUT if look at as EDGE HABITAT (like Kris's statement of the value of boundary). Local within continuous flow—sea/water meeting, flow constant. Play spaces redesigned to include feedback/

Anok: ideas of futility versus utility (how sustain double i.d.)—architecture of play, comparative spaces. UTOPIA of FLOWS—flow as characteristic of the net...

Conceptual architecture—DESIGN FOR COLLABORATION. Not necessarily a starting point.

Technology allows story telling through gesture online through illusion that camera is in the space.—BOUNDARY SUBJECT NOT OBJECT (the artist).

Raul—idea that social aesthetics could be in machines and can be extruded and trained. Designers DID have ideas of who the user is...Three upcoming features—ubi spam. Ubi surveillance, Misuse of information (personal) Social agent. Provides context of use information.

What else was shared on that panel—three things

- 1) structural models about collaborative process—reciprocity of participant and designer—children COMPLETING THEATRICAL—designers/participants—or individuals completing the communication--performative

Job of artist—Raul and I were hiking about talking about the early 20<sup>th</sup> artist and their insistence on breaking pattern—(pattern language)--ROLE OF AWE—RISK—JOB OF artist not necessarily to construct meaning, but to break meaning or expectation—suspension of disbelief—what it is to WATCH (Isabel's work) – work produced through collaboration and performed as collaboration but with risk for all...what it is to ENTER the state of AWE--TAXOOM

Last Panel—the Body:

Vulnerability, dependency, humanness—make present the stress on the body—Isabel—risk and instrument—Peter and Gong bing Shan—measurement of excess that is demanded from artists—ability to control excess, but also clearly data that can be used for other purposes, parallel with Isabel's attention to the shakra and nodes of the body (AGAIN some of this is what the instruments that we are using afford—argument between Raul and Saul about how much tools contain and how much we BREAK the perimeters that these set)—again, different kinds of artists, some tool BREAKERS, some TOOL MAKERS, and some USERS

Why Anti-gravity--Anti-gravity as reality and metaphor—TAXOOOM and its suspension of children and nonprofessional audiences in costumes—

Time/proximity and collaboration—other ongoing discussion—(PRESENCE) PHYSICALNESS OF THE COLLABORATIVE PROCESS – Michael's amazing network projects—again the question, can you design for latency? Should you design for latency? Right NOW he is finding music that was written almost in precognition of latency as a context.

ENDURANCE—literal or metaphor of collaborative process (in my instance quite a LITERAL exploitation of metaphor—24 hour clock, also CodeZebra rhizomatic or petal structure, each piece takes intensive work and collaboration—I am never the expert, always the curator/designer of the PROCESS not the end; Michael's work with music and long term projects using research networks ENDURANCE, Peter and Gong bing—obsessive relationship to building tool—violin as obsession—beautiful contradiction between Peter's desire to play until the point where he COULD hurt himself and the musicians he is trying to help who MUST play to the point where their bodies break. ISABEL's work which we saw was to the point almost beyond endurance. And then the liminal state of fainting—TIME—there is a fantastic long process of hurry up and wait in the technological process of creation—see this in Michael's documentation, in mine of CZ and in Nina's fascination with DEAF set up—lots of not working—human mind's ability to move between states of synchronicity, asynchronous and fill gaps—what was frustrating to Steve was completely stimulating to Mary and Tom (exhaustion/processing time—hit when they were really thinking about technologies of intimacy).

THIS Brings me to the educators' panel—HEROIC—truly strong heart muscles and stomach linings (Bev with her fourteen hour drive)—dedication to create something different and NEW for students—DIRECT relationship with making SOCIAL technologies, so that students can engage with EACH other and teachers and MAKE/INSPIRE learning—use in ABEL for music for e.g., and strong sense of community, using forms of communication FROM community (Ab) and the potential that technologies rather than alienating can create renewal, connection, dealing with the problems (artists and scientists too) of the solitary versus the communal—reminded of Lyn's discussion the day before

about how scientists rely on tools, do not have time to relearn a tool kit and yet needed to make the tools work.

Note on Phone Book—creating and creativity through the workshop process—ability to interrupt the assumptions of how mobile tools work, ability to personalize and socialize at the same time—serial expression, temporal expression.

[The-sketch-book.com/banff/uploads/index.wml](http://The-sketch-book.com/banff/uploads/index.wml)

Both Peter and Isabel are very interesting in UNLEARNING—issues of techniques and assumptions embedded in tools and what is considered the EXPRESSIVE BODY—how to unlearn constraints (parallel to discourse about the cyborg—Anne Nigten’s answer to Jeanne Randolph—we are in a different era—our bodies are already technologied—need to understand how and what our choices are—different construction when the body and the mind is penetrated as opposed to separated and objectified)- Demand and need for TOOLS and systems that are physically engaged—that do not limit us to hands only but full bodies or parts that are less vulnerable...hike—what parts of the body you use determines how you perceive! Leave us there.

THE ODD Tear of BEAUTY

### **Day 3**

#### **Summary by Sara Diamond**

Models in Alife and AI—connectionism—nodes and cells Pattern language CAN be dialectical (Deleuze ad Guattari)

#### **Quantitative and Qualitative**

Methods of talking over drinks (social enabling)

HOW TO ORGANIZE TECH—here talked about an ecafe feel for our collaboration lab more than a classroom or office.

SAT—network of FLOWS as a model

Self-reflexive

Project—TAT quality video streaming multipoint, audio and 3D, with displays that are point to point and malleable—network of networks

Electron Cloud as SAT metaphor

Memory as guide and aesthetic base—aesthetics as awe, presence, time spent in with focus, flow. Use phenomenology.

DISGUST as part of pleasure

VR piece with body slices—suggested that they also read Kristeva On Horror and

Constance Penley. Aesthetic experience and presence and absence

## NECTAR

Relationships of spaces to collaboration (Ron's work)—

Natural Language Processing

The Commons

The workroom (arm shadows as guide)—also look at elegant work at NRC

Presentation Room—cross platform (latency issue)

The agony of collaboration

Need for social scientists and artists

Problem of software's being made in separate corridors, need to compare artists production

Intentional and unintentional (bathrooms)

Surveillance

Horizon Zero—team with PASSION—transformation of the object (idea that young and unencumbered by theory versus amazing use of history)—in fact not sure cause ALL writers, including DJ Spooky credit the advent of 60s appropriation culture, Black music, improvisation...roots in collaborations of the early 20<sup>th</sup> Century—dada, surrealism

SK and radio collaboration—remix and re-purposing, more feminine culture of reproduction not production

Points on collaboration—feed back channel, need audience, tarinig, multiple points of entry, lowest common denominator in technology, hybriding, shared resources, illusion of Consensus, access to system administration – tools to collaborate are open source—so is content

TR as consortium, shared IP/versus Open Source

Two pieces from TR—Agents—smart data – replicate, migrate, collaborate

What happens when agents can mutate on their own (BACTERIA ANALOGY not viral)—relationship to hosts if migrate (right now organized that host permits them presence). JAVA code that.

PDA system as part of VR. Low costs VR.

Relationship of Painter and VR designer (3D space of paint, camera obscura)

Comes from Calgary project—make visible the invisible—facilitate process, find new knowledge, track collaboration--How do people think visually? Where is the locus of knowledge?

Open source-physical layer, code layer, content

Idea of sharing—economy of circulation if open source and content is free (Shirky on rock stars)

Open source process—the process, not necessarily the software.

Credit ideas and the train of ideas and processes

User design-

Aesthetic and economic (game always need an economy—Ultima issues for e.g.—  
what economy do collaborations need???)  
Support user by careful choice of metaphor (Architecture as given but WHAT ELSE asks Jan)  
Bestow privileges gradually  
Allow for easy and noisy communications (junk code comment)  
Ensure repeated interaction  
Ensure altruists get credit

**Socially adept technologies—social norms of humans as base of tech. design**  
Authentic User Approach—real world applications, for users who want and express need for technology.  
Collaboration is shared mutual ideas  
Can collaboration be seen, like trust, as a social good. PROTECT  
Minimum of interface. Occum's Razor

Acorn—agents—design for the right metaphor (psychotic girl friend)

Community of collaborators (groups)

Moderators—discussion about project managers, same characteristics—long term—DO YOU NEED TO MAKE PEOPLE IN A GROUP HAPPY? Percentages of unhappiness—25%--Jan's wonderful statement about caring about the people who you bring together (involuntary too-students)

The Art Critique as a method

My two questions for last night—started to ask people—(got diverted into discussing Mark Hansen wearing a suit to teach in at UCLA)

- 1) Describe a collaboration that failed and why?
- 2) Describe the most frightening person in a collaborative group you were in and why you were afraid of them. What did you do?

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## Day 4: Group Summaries

**Group 1: IP GROUP:** AnNe Nigten, Jan Abrams, Kris Cohen, Jonas Heide Smith, Nik Gaffney, Ben Jones, Andrew Kostiuik

ISSUES TO ADDRESS:

Methodology,  
Documentation,  
Failure,  
Tools

License introduced in Canada, NRC  
NRC- fed, they own the rights to anything they work on, then license, and profit from this to feed their research.

### **Shared Agreements**

In order to do collaboration with arts, they negotiated a shared agreement, to use the artists work, and the artists also have access to code and whatever is developed.

Not open source:

In animation company: if you have an idea, they owned idea.  
That's a contract thing. Supercedes your prior rights.

Default contracts are the problem. Difficult to turn down the jobs.

V2: everything created there is owned by V2, but if possible, they publish it open source. They want to be free exchange and repository. But if people on team are claiming their own rights, it doesn't work anymore. This is shared copyright assignment.

FoAM: has same model, FoAM has copyright and shared with artist.

The problem for companies: people with indiv rights might say they had the idea at home and sell it.

Problem of what constitutes an official IDEA.

e.g. company tried to claim that a word should be copyrighted.

Problem of assumption that anything can be property. Assumption of originality.

Creative Commons: they respect copyright, but they're trying to apply idea of open source to scientific rsh. Papers are freely available. Gp. Of researchers who don't want to have to sell their copyrights, so they put it online and its available for anyone. They ask only that if you take, you put it back in their repository.. Also applies to music or anything. Started out after the open archives concept.

How applicable is this approach for avoiding complications of copyright?



Creative Commons tries to help people find the best way to license their work. E.g. if you want to retain credit, or, if you want to be able to copy, .... You determine your own criteria for release. They then find the most appropriate license. "This is published under creative commons license." They have at least 4 types. Modular licensing.

Problem: it's such a mess internationally. GPL is good, but too many people use it by default. The problem of people using least common denominator tools, licenses.

Also trying to ask people to make a selection of small sets of licenses, so they will hold up under lawsuits. Laws are far behind, so these tend to hold up in courts. When this becomes a major body of work, stand better chance to hold up cases about open source or GPL.

Andrew:

Model: non-exclusive access to IP. 10 companies, 5 Univ with TR Labs. The idea is that the IP remains with TR labs and provided to sponsors. Student gets thesis degree (just like most thesis in university). TR, in order to attract best people: if there is a big profit, remuneration comes back to student and prof. And to TR Labs (used to fund more research). Not too many masters projects result in royalties. Non-exclusivity of this is interesting: companies don't like it because they think that the definition of the problem is important to them and they don't want competitors to know.

The strength of art is that they can connect diff disciplines, repurposing software, seeing connections (e.g. how to use already dev. Research and tools), creating something entirely different than orig. intention. What happens when someone like NorTel owns lots of the little bits that get repurposed. Problem of Remix culture.

TR consortium model addresses this. Have to protect indiv companies.

Ecology: problem, getting enough specificity to get something of value, but not specific enough to make companies worry about propriety.

Trust as important here.

**IDEA:** think of IP agreements as the formalizations of trust (and mistrust). Is there a way to architect this trust. Knowledge about the way you construct trust over time, might provide more material to build contracts over time.

**Problem:** once you formalize trust, it doesn't work.

TR: 5 year agreements. Assumption that it's renewable or terminated. That's a long time.

This time is important for developing trust; also keeps people from worrying about outcomes immediately in their contract. You also don't get companies showing up very speculatively, b/c 5 yrs. Is a big commitment.

Takes long time to get them in, about 2 years. Selling to them. They visit, learn about their company, wooing.

100 projects going on at one time; ideas for projects can come from anywhere (company, prof. Student). They vet the idea to make sure it's useful to anyone. Metaphor: buffet of projects, to attract enough companies.

Problem: overlap in interests between fields; paucity of licensing models. IDEA: Media Lab e.g., a lot isn't successful because of too many agreements. In cultural sector/art, seem small in comparison to large companies. Does it make sense to work with people to create compatible agreements in all the different disciplines? Education, art and tech, scientific rsh from academia: there is a lot of similarities to try to work towards compatibility in license structures, to have body of knowledge and resources (code) to give people options to choose from in licensing.

Goal: getting lots of people and institutes behind this, the small group has more clout.

All non-profit like groups.

Look for best practices between varying situations.

Project: gather sketches of license models.

How: find someone in other jurisdictions (e.g. Laurence Lessing (Stanford), Creative Commons.org or freesoftwarefoundation, fsf in Europe) to take on this project.

IDEA: put conference idea together for Rockefeller foundation.

Between step: April 2004, Hull UK, conference, Xstream project, conf. On practicalities of open source issues in cultural/artistic sector. Hull Time Based Arts (small artist org). Part of a European project, EU funded.

#### *Previous Conferences on This*

Wizards of Us

Code Conference in Cambridge (cofunded by Rockefeller: planned to be publication, coor. By Michael Century, didn't do it, 3-4 years ago; MIT owned license, some people wouldn't publish under it).

Both made cornerstones for good ideas. This idea of modular licensing repository was spawned there, but no one is identified to work on it.

IDEA: funding to get the next step, not just conferencing, but coordinating the project, action, research.

Problem: readability of contracts.

Problem: start up costs with legal fees. Predict: piracy and move to Cook Islands.

IDEA: does it make sense to have team of people and virtual environment to do the research on all the licensing possibilities, working between compatible orgs. Do you want to work inside or outside the system.

[Not-for-profit is same as non-profit, Europe to Canada. ]

Creative Commons: in the system in that it follows all the current laws, but trying to reinterpret in particular ways to extend it into possible territory.

?TR Labs: publishing. Prof and Students goal is to publish. TR has right to delay publication to wait for patent. TR Labs has right to review, but they don't. Part of trust model.

[TR]

Only works if there is critical mass: people will only share with consortium if they are sure they're going to get a lot back.

Trying to work in confines of inventor syndrome, the indiv inventor, they don't want to give up IP for that reason. Need environment where is something is successful, inventor needs to get recognized. But people, e.g. Univ, don't want to give up IP preemptively, in case there will be an invention, esp. having tech looking for application.

At TR, they are addressing a problem first, so have higher percentage of tech. Transfer.

Open source v. TR: with open source, whoever else who has access, they can demand of the inventor certain things for putting it out in world; with TR, they have no obligation to tell you how we did it.

NEED: taxonomy of those kinds of situations, and how they should be addressed legally.

?Design projects at Minn., Janet

Janet relays info from clients to univ. legal, who don't know the situation. A typeface can't be copyrighted in the US. Software doesn't fit with existing legal models.

Problems: mostly it's been design of things, which is easier. Most people don't read and just assign their rights to the Univ.

Improvisation as mode in which most people operate now.

Historical: legal history around ownership of maps. Who owns the map owns the territory.

### *Games Industry IP Industry*

e.g. Ultima online, brought new territory and ready to launch it, players getting ready, rush the island, many people rush to island...(Nik tells this); Ultima online for reference.

Letting users manipulate the development of the game, like open source, this breaks down an important barrier, when users become creators.

IDEA:

User perspective: create structure of inducements to the form of behaviour

Problem: what is a user?

### *Widen this Out*

Relate this back to ultimate social good, producing new tech knowledge, what's the maximum benefit to be gained, who's it for?

Copyright: U.S. always extended just as they're running out.

e.g. supreme court case: the extension of copyright terms and the retrospective extension was unconstitutional in the US ("reasonable length of time"), against spirit of that.

IDEA: time is easy to measure, but maybe it's the wrong measure. E.g. pharmaceuticals, time frame is huge, need investors to bankroll big projects. Maybe factor of profit is a better model than time, once achieved then its released.

Problem: doesn't fit with idea of no amt. Of profit is enough.

Problem: defining the object, are you buying cd or the music, what if cd breaks?

Problem: of laws that will always, by defn, be broken. Have to make laws that have a reasonable chance to not be broken. It should be ok to take a visual quote from movie.

Problem: "reasonable length" applied to Ben's micro-stories.

Linus Torvelt: "in principe IP and copyright are a good thing, but only if they are applied morally." Right now, they're applied semantically (immorally).

More ethical companies are becoming visible (look in bus mags);

**IDEA:** make visible these good practices out there; publicise them. Collect the piecemeal parts. This connects to AnNe's idea about the massive, coordinated research project.

**IDEA:** tactic, don't need to fight, it works as a slow wave, working with trends,

TO TALK ABOUT NEXT:

-non software case studies

-open source: strange perceptions of this, as if it's some big systematic project, but its restricted in various ways, e.g. required to keep attribution in the code, officially, no legal recourse, but a social punishment.

There is a place where the social and the legal meet: e.g. VR Labs ideas about how to build trust and how trust informs what people are willing to agree to legally.

**Problem:** With cutting and pasting open source code, it's hard to trace who uses the code.

Does legality obviate trust, or can trust build into good contracts?

?What is the usefulness of contracts?

In the moment of contract (pre nups) is the most tense part of these, shows suspicion, betrays trust.

Open source model of pre-nup.

FoAM: GPL as like marriage contract?

**IDEA:** A menu of modular contracts, that's why GPL works, because lawyers have vetted it.

**Problem:** too much is not covered, e.g. visual expressions, content generated through software, interface elements.

We're making progress with software, but not with other sources.

Can you export open source model (free documentation license) apply to, e.g., DVD.

**IDEA:** GPL: ownership and rights you have as user who does something with it. So, FoAM owns it, but gives right for someone to use it in own way, as long as you will give someone else the same permissions. Benefit: encourage remix culture.

**Problem:** How do you fund this? Credit chain going back to original, citing the fact that public money was used to fund this originally.

**IDEA:** Creative Commons approach that gives people access to creative use of the product. And opportunity for revenues within this system. The benefit here is just to get people to think about it. This fits in with the visualizing model; make good models visible.

?What's the scope of the **viral licensing**, aspect of use? If you can use it as much as you like, but you use it as a much larger project, with other components, then how does that work?

**Problem:** stand alone v. interarticulated parts, and covering these diff. Types under license.

**Problem:** Defn. of Derivative work:

**IDEA:** run so far ahead of the law in our remix impulses that the law can't apply itself to our work.

?What is unique about the digital realm that runs ahead of the law. Harder to discern original from copy. E.g. stealing a car v. stealing software.  
Defn. of theft: to deprive, this model doesn't apply to software, where someone can still have the original and be stolen from.

**IDEA:** two wrongs make a right. Mp3: you are stealing the code and the content. Encourage Theft. You have to trust that people will also steal.

DISPUTE:

Is this a divergence? The discussion of whether laws do or don't apply to digital realm.

For 2 reasons:

1. defn of law is intent to permanently deprive
2. 2.

MP3: German company, have to license the encoder, not open source.

?Who is reformulating laws for the digital domain?

**IDEA:** Is there a book? Lessig. Laws of Cyberspace and The Future of Ideas, don't work towards new laws, but look for space within existing model, esp in US, and blow those open for new works. If you don't do this, the new laws will be obstructed by the big institutions.

SUMMARY

PROBLEM

A. Laws do or don't apply to ownership digital realm (and this can be a tactic)

For 2 reasons:

1. defn of theft under the law is intent to permanently deprive
2. diff idea of cost of reproduction, copy/original

B. [cited in discussion by Lyn B.] The third party of the legal profession, in whose interest it is to make the process as complicated as possible, to make documents hard to read, etc.

## SOLUTION:

Modular Approach to licensing v. proprietary based on copyright.

And below this, an idea about use that FoAM has used: the viral solution: each person can use any outcome, but has to let anyone else down the chain do the same.

## INTERMEDIATE TASKS

Do the consortium research that AnNe suggested.

[Mediating task: create taxonomies of options, eg. what this might create: might demonstrate diff defn of whose the user and whose the consumer; also implications of various choices, different possibilities]

## TACTIC

Look for spaces between laws, rather than creating new laws (Lessig)

Methodology: cite Lessig's theory on working in laws, not writing new

Documentation: [www.lib.fo.am/cgi-bin/view/Labyrinth/CopyRight](http://www.lib.fo.am/cgi-bin/view/Labyrinth/CopyRight), [www.creativecommons.org](http://www.creativecommons.org)

Failure. US copyright law, big win for anyone who can afford lawyers

Tools: FoAM's cite, Lessig's books,

**Group 2: Process and Project Management, Information Sharing and Documentation, Education, and Deliverables:** Sara Diamond, Dena Eber, Mark Hansen, Dana Plautz, Eddie Shanken, Nina Wakeford)

1. Dual publication - e.g. statistician collaborating with artist must publish in both artistic context (where s/he gets no credit as a statistician) AND in disciplinary journal - which demands extra work.
2. College Art Association recently published guide on labor intensiveness of teaching digital media, with recommendations for how to more equitably establish teaching load. This could be a model for collaborative interdisciplinary work.
3. Assessment of interdisciplinary work, esp. of junior faculty - Given criteria for promotion/tenure based on contribution to one's field, how can collaborative research be evaluated? Idea to create an international board of experts and/or list of reviewers subdivided by fields of expertise (perhaps under the aegis of the journal Leonardo, which has an established reputation) to offer recommendations.
4. Residencies - Artist-in-residence model can be applied to, e.g., computer scientist-in-residence. Different sets of expectations and social relations that pertain to residencies open opportunities for creative exchanges otherwise constricted.
5. Artists seen as crash-testers of beautifiers - but the role of artists in promoting and effecting a fundamental methodological shift needs to be more widely

understood and appreciated by collaborators. At the same time, the artists needs to be able to understand and appreciate the scientific complexity of a problem in order to develop a metaphorical/artistic interpretation/reconfiguration and for that to be accepted by collaborators, e.g. Jane Prophet.

6. Importance and value of video as a tool for documenting collaborative process and resulting work. Blogs (web-logs) can also serve as valuable documentation tool, particularly for student collaborations and remote collaborations.

7. Boundary breaking methods for interdisciplinary collaboration used for Fastrack (Sara D has documentation). Methods include workshop and retreats, CODE-ZEBRA. A handbook or collection of case-studies would be VERY helpful. Resources: A Guide to Good Practice in Collaborative Working Methods and New Media Tools Creation (by and for artists and the cultural sector) eds. Lizbeth Goodman and Katherine Milton (Oxford: Oxbow - print edition-Performing Arts Data Service - online edition- January, 2003); "Two Weddings and No Funeral" in Design and the Social Sciences, ed., Jorge Frascara (London and Washington: Taylor and Francis, 2002); Michael Naimark, "Truth, Beauty, Freedom, and Money: Technology-Based Art and the Dynamics of Sustainability" <http://www.artslab.net/>

### **Group Three: Methodology for Art/ Technology Collaboration:** Isabel Rocamora, Maja Kuzmanovic and others

We looked at two models of art/ technology collaboration: the collective and the (artistic) director lead process. The case studies we talked about were mainly 'development' or 'production' projects in which the research results are applied, rather than extensive research being conducted.

#### Stage 1 – Coming together, the initial stage

##### In which the project takes shape

We identified a few key steps in this initial process:

- The **binding of collective inspiration**. This can be done in a workshop environment, preferably a retreat without too many other distractions. The purpose of such a retreat is to understand the backgrounds, motivation and inspiration of every individual involved (regardless of their role in the collaboration). The collective vision is gradually shaped by the collaborative process, through discussions, games, sketches and presentations. The roles



people play in the project are shaped from these sessions, as well as their areas of expertise.

In the case of an artistic director lead process, this stage will have pre-identified vision and goals which will be amplified and modified by the collaborators during this session

- **Socialisation:** such as a party, drinks, good food!... The aim of these informal gatherings (during and after the 'retreat') is to create a 'group temporary culture' which separates the person from the professional role. A personality bonding.

- The possibility of engaging with a “**momentary external source of inspiration**” - such as an external artist/ scientist/ philosopher... etc who appears at this initial time to inspire collectively and then leaves the group. This creates a reference point for the rooting of the project, or simply a broadening of perspectives that the group needs to keep the 'creative juices flowing'

- The establishing of a **common tool** is crucial and one of the possibly most fragile points (maybe even failure) in the initial stage: a mutual (also suggested as “neutral”) language. The role of the project leader in this stage is that of a moderator and match maker, slowly sculpting the shape of the project into a collectively accepted vision.

## Stage 2 - Reality Check

### Where the vision is translated into strategy

- Designing a plan for an art and technology project means that although the collaborators might come in from completely different disciplines and don't understand the intricacies of each other's practice, it is necessary to visualise the mutual co-dependencies between the different people's tasks (example: <http://libarynth.f0.am/cgi-bin/view/Libarynth/ProjectTxoomCoordinationTorino>). The visualisation of these **co-dependencies** would ideally be generated without a time-line at first, focusing only on the tasks needed to achieve the final result. The visualised graph should then be extended with duration tags and deadlines linked to each task, as well as the infrastructure needed to accomplish the task successfully)

- The **critical paths** in the dependencies need to be identified in this stage, and redundancies built into the process (whether this means extra people, equipment, funding... or the so called **Plan B...** and C and D). An ideal and minimal situation should be outlined. The next phase should begin from the minimal situation, and through a **modular approach** the team should work towards the ideal situation. The modules should be outlined in this phase.

[sidenote] A collaborative tool that would integrate the visualisation of the process into dependency charts, with scalable levels of detail and a calendar / budget management capabilities could aid the project leaders and collaborators to keep track of the process in the next stage.

- The identification of a **leadership role, or a point of reference** of some kind should be agreed on
- Identifying the actual resources of all parties involved to create a **collective infrastructure**: a tool set and skillset. During this stage a definition of roles as well as a clarification of commitment is set.
- Engagement with the **logistic problem of mapping resources**- which can be identified as a potential point of failure in the case where the resources are shared and/ or owned by institutional bodies with multiple loyalties
- Introduction and agreement of **intellectual property** issues

The above would ideally be a means of minimising the opportunities for collaborative failure, if everyone involved is willing to take full responsibility of their further actions. This however rarely happens that smoothly, as there are always external factors that can disrupt the fragile balance of a complex co-dependent collaborative process.....

### **Stage 3 – The making**

#### Where the strategy materialises

We liked “making” as opposed to production, since research, development and production are often parallel processes, with different durations and priorities.

At this point in the discussion the machine was defined as a third entity the axis of the collaboration, one that is very prone to unexpected failure, what should be taken into account when planning this stage.

A few key steps would be:

- The constructing of an **architecture of the collaborative space**. In the instance of an art/ technology collaboration we will propose that the artist and the programmer (for e.g) share the same working space to allow for convergence and divergence of working process.

--> This provides a **peripheral awareness** of each other, which we agreed was crucial for understanding the working process on a non linguistic level, through things that cannot be explained in words

- Where the above is not possible – in the context of long distance collaboration it is vital to construct a “**remote peripheral awareness**”. This will consist of a crucial physical get together at key points in the process, rooted by a nourishment and two way connection system throughout. For the latter we suggested establishing open channels of communication with common collaboration tools such as chat, phone, webcams... In passing we mentioned that groupware tools usually forget about the importance of the peripheral awareness, where the atmosphere of the space changes by activities in it (shadows, movement, open windows, slamming doors...)

- A definition of **the role of the PI (the leader in the project)**: in this case identified as the Principal Integrator or Primary Invigorator (that can be one or more people). The goal will be to keep an overview of all key dependencies, the critical paths, people's intellectual and emotional involvement, conflicts, affections, solutions, timescales and nexus with other dependencies. It was pointed out that in the case of larger projects two or more PI's might be necessary, since in-depth knowledge of such a variety of skills would be required that it is rare to find people who could possess them all in one person. In the case of several people forming the entity of the PI, each of them needs to have some overlap of skills with at least one other person, so that they can lead the project and supervise the communication between the different disciplines through '**partial translation**' (where not one person grasps the whole, but there is enough overlap in understanding that the project can become a whole)

- The importance of a **modular approach** was stressed in this phase again, starting the making from the minimum necessary to embody the vision of the project, and extend the project gradually, with the ideal situation as a most ambitious goal.

- The role of (**rapid**) **prototyping** as an excellent means of early testing the project's results and monitoring the progress, constantly keeping it in check with the overall vision, but allowing for a lot of flexibility. Test subjects would be brought in, in this early stage, and a methodology and evaluation process set.

- The role of **process documentation** to satisfy both present and future needs (such as keeping up to date with everyone's findings, funding reports or other evaluation, possible software releases etc)

When talking about documentation of meetings we talked about the importance of **the written word**, and the fact that it demands a lot of discipline from the collaborators to keep up with communicating and documenting the process throughout the project. Sometimes it isn't possible to strike a written agreement

of every step one takes with other collaborators, in which case trust and faith in the verbal agreement process comes in.

### *Stage 3 – “the last few hours!”*

Where the implementation stops and the fine-tuning starts

- **Testing/Rehearsal:** ideally at least a three week period! was suggested... Again a realistic amount of time needs to be planned for this stage before the launch or public participation/ presentation. This allows for some fine tuning after the evaluation of the work by pre-release peer review. Venues and funders need to be convinced of the essential nature of this stage
  - The time needed for **calibration** is often underestimated. Calibration has to be planned into the timescale realistically
  - Once the last stage has been reached the **development** of the technology has to be put to a stop. if the development is not completed, the decision has to be made to **return to the last workable version**
  - The question of: at what point does **Plan B** come into place? It is suggested that this should be planned right at the beginning of the collaborative process
  - Once the project has been launched or presented it is vital to have a **debriefing session** with the whole team. This enables an understanding of the successes and failures as well as a starting point for further collaboration
- ? [- And finally we would like to offer a **homage to content** by stating a priority of content over technological virtuosity. We would have liked to have covered the methodology of content collaboration and vision development, but were unable to fit it in!]

---> note by maja: i don't quite agree with this last one - i don't see the content as having a priority - the two must go hand in hand. we didn't talk about the methodology for technology development either - we just talked about a collaborative process in which both content and technology get developed in parallel. the big problem in art-tech collaborations arises from such a separation of the content and the technology, but i think a symbiotic relationship between the two must exist.

**Group Four: Knotworks:** Steve Marsh, Hans Samuelson, Ben Coode Adams, Lyn Bartram, Michael Boyce

## The Big Question

- Scalability of Collaboration
- Defining Collaboration
  - How it is defined dictates how it scales (or doesn't, or can, or is worth talking about)

## Failure - Case Study and Observation

- E.g. Intelligent Graphic Interface
  - Misconceptions on part of partners (budget hoarding)
  - The academic seen as periphery
  - Misalignment or lack of champions
  - Top down imposition of values with no bottom up feedback
- But - in failure, we can still learn something, recoup something
  - Failure informs success

## Methodology

- INITIATION
  - The assumption of power - premise that yours is equal
  - Be ready to work with institutional insecurities and desires
  - Work in the gap between actualities and desires in the institution (all of us do this)
  - Need for and significance of position of champions (and institutional commitment)
    - Top down and bottom up problems
    - Point of entry
- Large scale collaborative process
  - Focus on problems of this
- Fractals and infinite complexity...
  - Infinite at all scales but not identical at all scales

## Failure and Success

- Institutional denial of failure
- Seek to fail in interesting ways
- Tangible results occurring throughout process are important
  - Mitigate failure and encourage continued support and existence

## Stuff of note

- Management is important

- Is a large scale system collaborative or managed?
- Who loves the project?

And some more

- Public access

Side notes

- Defining collaboration is not in any way collaborative
  - Don't over-intellectualize
  -
- It is possible that the product of collaboration is collaboration itself
  - That collaboration is its own justification of existence

Documentation

- Preserve the group memory
- Hierarchies of information
- People on the ground care...
- The loss of the middle manager
- Cross collective memory