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# Degrees of Freedom: Models of Corporate Relationships

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**ABSTRACT**

The author discusses three models of corporate partnership that support the creation of new-media art: directed altruism, skunk works (product development), and regulated self-interest. Similar activities can occur across these models, but expectations, criteria for assessment and final outcomes may differ. Clarifying the rules of engagement for arts organizations and artists when they work with corporations is critical to success for both artists and companies. This essay provides a framework and examples for each model from Canada, Finland, the United Kingdom and the United States. It evaluates failures as well as successes.

This essay discusses three models of corporate partnership that support the creation of new-media art: directed altruism, skunk works (product development), and regulated self-interest. These partnerships provide financial, in-kind or technological support for entire institutes, specific researchers or projects such as the co-development of tools. Although expected outcomes vary by model, similar activities can take place across them. Working relationships with artists and their organizations can shape corporate goals and products and vice versa. Clarifying the rules of engagement at the outset goes far in satisfying all parties in the relationship.

The models derive from observations of successes and failures; descriptions of partnership goals by corporations; discussions with corporate university relations officers and researchers who work for British, American and Korean companies; formal and informal interviews with institutional representatives and institutional and independent artists and researchers; and a meeting of University of California researchers with company research officers that occurred in 2003 [1]. The demise of the New Media Innovation Centre (NewMIC), a consortium based in Vancouver, Canada, informs my argument [2].

## MOTIVATION

Arts institutions engage in corporate partnerships for various reasons and not just for the donations that augment their budgets. The Banff New Media Institute (Canada), SMARTlab Centre (U.K.), Crucible Studio and m-cult (Finland), and the MESH network (Canada/U.K./Finland) hope to influence technology development, popular culture and design.

The Banff New Media Institute and m-cult envision technology and cultural production as points of intersection between superstructures and infrastructures, where ideas about culture, work and society are evident and enacted through actual technologies and their contents [3]. These tools can embody such values as cooperation, creative expression and open-ended play rather than efficiency. m-cult and Crucible Studios emerged from the practices of northern European participatory design, in which consumers and producers are integrated early on into the design process through workshops and ongoing consultation [4]. The process of production of

a technology informs its final form [5]. Participatory design allows potential technology users, designers and technologists to work together in the process of imagining and inventing tools and applications [6]. The SMARTlab Centre is developing technologies that enable people with disabilities to participate in cultural life. Representatives from corporate partners who participate side by side with the disabled users become sensitized to the needs of this constituency [7].

The MESH Network (formerly Creative Crossings) is a research and creative consortium of partners in the U.K., Canada and Finland that facilitates comparative practices in participatory content design across various communities. MESH researches ways of engaging communities in the design and use of mobile devices, theorizes the experiences and cultural impacts of mobile communication and designs metadata, open-source software and other technological necessities [8]. For example, Proboscis (U.K.) works with local communities to assist them to record, archive and make available the histories of specific sites, using mobile recording and playback devices in their Social Tapestries Project, as do the Digital Cities Project (Montreal) and m-cult (Helsinki). The Mobile Digital Commons Network (MDCN), a research consortium on mobile experience design, houses Digital Cities and m-cult, which are both members of MESH. Proboscis participates in its U.K. Pervasive and Locative Arts Network (PLAN), coordinated by the University of Nottingham and Futuresonic. These networks include corporate partners such as Hewlett-Packard. These organizations and their corporate partners value the ways in which artists "misuse" existing technologies.

Corporate partners provide other benefits for cultural researchers who hope for real-world applications of the tools or content that they create. CHUM Ltd. of Canada recently supported a series of independently produced micro-movies that will premiere at the Banff Television Festival and air on mobile telephones across Canada. Industry partners have the capital and marketing resources needed to complete the development cycle from creative research to actual product.

Corporate partners also benefit in many ways. They can win positive public recognition through association with art and technology organizations. They can observe emerging applications and technologies and cull and transfer them to generate marketable products. They can see the ways in which emerging markets relate to their technologies or applications.

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They can co-develop new kinds of products. They can assist in the emergence of small and mid-size companies loyal to their products. They can find completely new ways of working with their core technologies. Companies can leverage public funding—grants in Canada, the U.K. and Europe require tripartite relationships—to support research that is relevant to their industries or to the development of specific products [9].

It can be more efficient to situate research and development outside of the company, in collaboration with art and technology institutes. In the 1990s and early 2000s, Phillips Corporation (Netherlands) integrated designers into technology laboratories, resulting in a freer, more dialogical and highly creative cultural space [10]. After corporate restructuring, the design process shifted back to technology drivers. In order to cultivate equivalent levels of creativity within the new structure, Phillips is exploring collaboration with entities such as the Banff New Media Institute to iterate technology and application/content development [11].

Companies may move between models, depending on their financial well-being, shifts in corporate leadership and the capacity of their partners. Unique individuals, such as Jo Reid at Hewlett-Packard (HP), who have a strong attraction to the arts and/or to the challenges of cultural difference, work as mediators, translators or ambassadors who can operate in cultures external to their institutions, facilitate actual project relationships and integrate the outcomes from external partnerships into the corporation. Enduring collaborations cross institutions and cultures and shift practices within these as well as between them. Brokers construct models capable of fulfilling both sides' needs [12].

## DIRECTED ALTRUISM

The term *altruism* refers to instinctive co-operative behavior that can be detrimental to the individual but is salutary for the species [13]. Directed altruism consists of a conscious decision by a corporation to prioritize the future evolution of its industry and the society in which it operates, putting aside immediate gains. It requires corporations to remain at arm's length from development efforts and can take the form of advisory-board membership. An HP executive sits on the advisory board for the MDCN [14]. Satama, a Finnish company, advises MESH and MDCN, hoping to glean gen-

eral knowledge from open-source programmers, arts groups, hackers and other corporations [15]. Based on experience working in support of artist-researchers and support for design research from the ethnographic perspective at the Incubator for Critical Inquiry into Technology and Ethnography (INCITE), at the University of Surrey, Intel's Dana Plautz notes that some of the friction between artists' creativity and technologists' creativity can result in inventions [16]. Art and technology researchers have greater leeway to take risks. They can afford to fail in ways that corporate product developers simply cannot. Products can also result that might fit an unanticipated market need [17].

Directed altruism motivates companies to work with their competitors in order to enhance industry-wide knowledge. Sun Microsystems is committed to the mission of the University of California San Diego/Irvine's joint campus Game Culture and Technology Lab (GCTL): "to expand the notion of how game metaphors, design principles, and technologies can be utilized for alternative content and context delivery" [18]. This goal fits Sun's larger interest in ubiquitous computing and home technologies. Sun featured GCTL student games at the Games Developers' Conference, where UCI researchers Robert Nideffer and Celia Pearce presented ArtModJam, "a fast-paced event showcasing live demonstrations of . . . original, controversial and entertaining examples of this emerging art form that uses commercial game engines such as Quake, Unreal and Torque" [19].

Nokia is competing against Microsoft's operating system to develop an alternate software standard, Symbian OS, for mobile experience design [20]. Through its partnership with Crucible Studios Laboratory at Media Centre Lume, University of Art and Design, Helsinki, Nokia's researchers learn about storytelling from Crucible researchers, who create games and mobile-driven television experiences in their labs using the Nokia platform [21]. Nokia is eager to discern requirements of specifications for mobile platforms that will be robust enough for narrative presentation in the next 2 to 5 years [22].

Hewlett-Packard U.K. developed Mobile Bristol with the University of Bristol, the National Endowment for Science, Technology and the Arts, Future Lab, the BBC and small companies and arts organizations in Bristol. Mobile Bristol has succeeded in acquiring significant pub-

lic funds to provide "an experimental test-bed for technology and user value research in pervasive mobile media" [23]. The partnership fuels a dynamic mobile culture that often operates outside HP's platforms. It engages broadcasters, educators and cultural organizations as well as individual users. The altruistic spirit of collaboration and openness reflects the presence of ethnographers, psychologists, designers and cognitive scientists as well as design participants and end-use communities in the lab environment [24]. Notable outputs include mobile experiences such as Riot!, a location-based drama co-produced with BBC Radio Three. While Mobile Bristol fits the directed altruism model of investment, it might also be considered a form of skunk works, in that it prototypes challenging software and applications that are high risk and pre-commercialization yet on brink of being market ready. Hewlett-Packard provided a core group of researchers, who now identify more with Mobile Bristol than with their actual employer. This generous sociality has made it possible for the partnership to expand to include additional external partners [25].

## SKUNK WORKS/
## PRODUCT DEVELOPMENT

Some companies measure the success of their external partnerships through actual product development. A skunk works is "a semi-official project team that is tacitly licensed to bend the rules and think outside the box" [26]. During the new-media boom, the term attached to software-development initiatives that fast-tracked new products. Skunk works operate with a minimum of bureaucracy and an optimum of creativity. They spin out prototypes more rapidly than corporate or university research departments can. Artists and designers are skilled at the imaginary leap of taking fundamental research into actual expression. Onomy Labs describes this process:

> We engage in "genre-based design." . . .
> A genre defines not only the technological form, but also the social framework for the experience of the technology. We methodically analyze both the formal and informal conventions that influence the meaning of technology. Based on this analysis, we augment the scope and objectives of the design problem, and proceed to create a genre-sensitive design for the form and interaction of the new technology [27].

Artists' and designers' projects can be prototyped, produced and marketed. In-

stitutions can act as brokers and project managers for skunk works. The Banff New Media Institute at the Banff Centre has created the New Media Accelerator Program to ensure that all collaborators can profit from its applied research environment.

Skunk works have the potential to be powerhouses of innovation, and the integration of corporate researchers into them, as in the case of the HP–Mobile Bristol partnership, ensures knowledge transfer between parties.

## REGULATED SELF-INTEREST

Canada has a unique regulatory agency, the Canadian Radio and Television Commission. It requires media and communications industry corporations that make new acquisitions or mergers to provide "social benefit packages" that consist of financial support and access to distribution for independent producers, researchers and professional development institutions [28]. The investor may have first refusal rights to products. Copyright resides with producers or research institutions.

Millions of dollars flow into the broadcast and new-media sectors through these funds [29]. Telecommunications company Telus created an educational new-media fund that supports educational new media and underwrites music education in Canada [30]. The Bell Canada merger with the Canadian Television Network funded the Interactive Project Laboratory (IPL), a part of the Bell Globe Media Content Innovation Network [31]. The IPL is a program of applied research into new-media forms and economies, prototyping and small business development. This is a pan-Canadian network, with the Banff New Media Institute linking to the Canadian Film Centre in Toronto and L'Institut national de l'image et du son (INIS) in Montreal [32]. Other programs include equity initiatives such as Aboriginal screenwriting at the Banff Centre, supported by CHUM Ltd. [33].

Professional administrators, usually lawyers, negotiate these packages and administer the funds. Fund administrators and board chairs work closely with institutions to establish criteria and to support select projects [34]. Institutions anticipate the next big vertical integration, but merger opportunities are running out, with an increasingly challenging economic situation looming.

## FINDING THE RIGHT MODEL: PRESSURE POINTS

There are numerous points of pressure upon these three models. There are gaps between the pace and focus of work inside academic institutions and art and technology centers, and between the needs of technology consumers and those of corporate research and production. The academy is less product oriented. Artists, however, often want to get their work done and shown. Consumer products are far from what artists make or researchers imagine and require much adaptation. Companies want to fast-track R&D and technology transfer, yielding prototypes that can rapidly be put into production.

A recurrent problem is the desire for applied research or demonstrable products on the part of companies and the contradictory interest in basic research on the part of some researchers. Kris Cohen, a postdoctoral researcher in the INCITE Program, notes that corporate collaborators want "nuggets" of digested research. He points out that such "nuggets" suggest solutions that are simple, while reality is complex. Companies become frustrated and lose confidence in academic researchers when the tidbits are not repeatable or easily applied or collapse into homilies [35]. Researchers become frustrated because their deep musings on design process are simplified in ways that dilute or distort their meaning. Researchers are skilled at analyzing the current use of technologies but poor at envisioning or predicting the future. In some cases, researchers tactically pitch phantom "products" to obtain support and then quietly engineer these to perform the necessary research if a concept is accepted [36]. A more altruistic model might enable a more direct approach to bridging seemingly divergent interests and to understanding structural impediments to invention. In this regard, interdisciplinary teams incorporating humanists and social scientists can help unpack assumptions that engineers and corporate executives build into technologies and the research-production-marketing cycle, while simultaneously adding deep insight into the communities that consume and use those technologies.

The New Media Innovation Center (NewMIC) experience offers an instructive case study of how unclear models of support can undermine a large-scale partnership. Aggregating Canadian West Coast research universities; the Emily Carr Institute of Art and Design; companies such as Electronic Arts and Sony; TR Labs, an independent research network in western Canada; and small companies to be attached to the initiative through a technology incubator, NewMIC developed a collaborative model that focused on "the research, development and commercialization of new media technologies and applications." The incubator would charge rent and provide business services and some mentorship for small companies [37].

NewMIC's demise offers insight into some fundamental challenges for collaboration, partnership development and management. Company representatives complained of sycophancy; NewMIC researchers and board members asked them for direction, while the corporate sponsors wanted a fresh view from outside the company [38]. NewMIC researchers thought they were doing fundamental research following a directed altruism model. Most corporate partners wanted a skunk works that would result in immediately applicable outputs. Sony demanded working prototypes that correlated with the company's current or emerging technologies. One corporate representative felt that the researchers were for the most part "very theoretical," unconnected to "downstream practice" [39]. Research teams made up of theorists and practitioners might have avoided this disjunction. When teams directed their efforts towards actual projects with clearly defined goals, there was success. Such was the case with a Sony interactive television application developed by student researchers at the Emily Carr Institute [40]. Companies frustratingly found themselves isolated in their existing areas of expertise, deprived of dialogue with other companies or researchers. They craved a larger discourse across their specialties and technologies. Equally challenging was the development and implementation of an incubator to house small companies and provide eventual income for NewMIC [41]. Companies wanted a role in technology transfer, but this never materialized because intellectual property rights were blurry and projects did not mature toward product development.

Researchers also balked. Brian Corrie described a "stifling environment" where the "pressures to deliver were constant and intense." Some companies conceived of NewMIC as their "development lab" for initial prototyping prior to production and marketing decisions. This role was beyond what NewMIC was capable

of providing. Corrie noted, however, that Sierra Wireless enjoyed the "conceptual overview; they saw the benefit of this as much as concrete deliverables" and used technical prototyping as a means of testing ideas [42]. Although culture was the factor that attracted investment, Corrie observed that NewMIC prioritized engineering research because it rapidly provides measurable deliverables. Cultural research, by comparison, tends to be lengthier, demands engagement with participant communities and produces outputs that are difficult to quantify.

Long-term dialogue and hybrid teams (as in the case of HP and Mobile Bristol) could have aligned the disparate models and bridged divergent goals. However, there were no consistent, long-term relationships built between company representatives and representatives at NewMIC. There were no ambassadors sensitive enough to translate the needs of corporations, researchers and small companies for one another. Its board could not find a unified strategy to address the crisis. The failure to create cohesion was the ultimate root of NewMIC's demise.

## CONCLUSION

The same activities can occur within differing partnership models. The Banff New Media Institute, INCITE, MESH, Mobile Bristol, the UC Game Culture and Technology Lab, m-cult and Crucible Studio all offer a number of small success stories in corporate, institutional and creative relationships. Intel's hands-off funding of creative researchers furnishes a positive model of directed altruism, as does HP's commitment to integrating artists, researchers and the local community, creating a space for invention that forges a dialogical relationship between corporate labs, cutting-edge research and real-world applications. Accelerator programs that provide in-kind or even money resources, technical know-how and strong prototyping support as well as business advice can act as skunk works. These can be successful if they carefully establish their abilities, work very collaboratively with all partners and play a visionary role in forming relationships with companies and in proposing and developing products. These approaches allow continuity between the concepts of artists and designers, the needs of companies and small business development. Regulated self-interest social benefit programs are an important source of support for larger initiatives, in-

cluding those with equity goals. All three models are viable so long as partners mutually define goals, set rules and stick by them.

**References and Notes**

**1.** The meeting was convened by Simon Penny at UCLA and included representatives from Electronic Arts, SGI, Microsoft, Intel and the Rockefeller Foundation.

**2.** <www.vancouvereconomic.com/key_sectors/technology/growth_industries/new_media.asp> provides a sense of the context of NewMIC's birth and its initial focus. NewMIC shut down in December 2003.

**3.** This philosophy is expounded at <www.banffcentre.ca/bnmi/about.asp>.

**4.** See Minna Tarkka, *Performing New Media, A Critical Framework for Design* (Helsinki: University of Art and Design, forthcoming, and National Consumer Research, Helsinki: LUME University of Art and Design Press). This model is quite distinct from American models such as that of the Palo Alto Research Center, in which artists worked within one corporation.

**5.** John Law and John Hassard, eds., *A.N.T. and After* (London: Blackwell, 1999); Bruno Latour, *Aramis, The Love of Technology* (Boston, MA: Harvard Univ. Press, and Paris: Centre de sociologie de l'innovation, 1998).

**6.** Law and Hassard [5].

**7.** See project descriptions at <www.smartlabcentre.com/>.

**8.** MESH states in its manifesto: "MESH is a network and consortium to support cultural and social innovations for mobile, wireless and pervasive media. Through exchanges of personnel, expert meetings and conferences and common studies, MESH builds a network of research and development which pushes forward the agendas of user experience and civic participation in the emerging landscape of ubiquitous computing. The key partners in MESH are cultural organizations which operate within a dense international, interdisciplinary and cross-sector network and have a track record of innovative initiatives in mobile and wireless arts and technology. Together with their academy and industry partners, they work to develop cultural uses and social experiences for current information society technologies."

**9.** For example, the National Science and Engineering Research Council of Canada (NSERC) has special grants for supporting researchers with formal corporate partnerships.

**10.** Discussion with David Eaves, Phillips, U.K. researcher, 2004.

**11.** See Ref. [10].

**12.** Hewlett-Packard's Jo Reid acts as an intermediary between the company and the community and is an actual researcher, able to create and lead teams.

**13.** <http://dictionary.reference.com/>.

**14.** <http://mdcn.ilesansfil.org/15/>.

**15.** For information on Satama, a company that creates bridges between mobile media and technology firms, creating new links and prototypes, see <www.satama.com/flash_english/index.html>.

**16.** For more on Intel's support of art research, see Dana Plautz, "New Ideas Emerge When Collaboration Occurs," *Leonardo* **38**, No. 4, 302–309 (2005). See <www.soc.surrey.ac.uk/incite/index.html> for an overview of INCITE.

**17.** This point was iterated many times at the 2003 University of California retreat.

**18.** The lab and its initiatives and partnerships are found at <http://proxy.arts.uci.edu/gamelab/>.

**19.** <www.calit2.net/culture/features/2004/3-24_gameConference.html>.

**20.** See <www.symbian.com/> for information about this operating system.

**21.** The framework for the lab and its projects are described at <http://crucible.lume.fi/>.

**22.** See <www.lume.fi/lumenet.nsf/paasivut/base_eng> for program information.

**23.** See <www.mobilebristol.co.uk/flash.html> for a project description.

**24.** A thorough description of the Mobile Bristol project and exploration can be found at <www.hpl.hp.com/news/2004/aprjun/mobile_bristol.html>.

**25.** Mobile Bristol now includes the Banff New Media Institute and Concordia University in Montreal, part of the Mobile Digital Commons Network, and a series of residencies at the Banff Centre.

**26.** <www.worldwidewords.org/qa/qa-sku1.htm>.

**27.** <www.onomy.com/blue/research.html>.

**28.** See <www.crtc.gc.ca/eng/welcome.htm> for an overview of the Commission.

**29.** The Bell Broadcast and New Media Fund is an example of a healthy "social benefit program" that provides investment in new-media convergent content. See <www.ipf.ca/Bell/English/BellFund.html> for an overview of the Bell Broadcast and New Media Fund and the projects it supports.

**30.** See <http://about.telus.com/funds/foundation/index.html> for various Telus initiatives.

**31.** See <www.banffcentre.ca/programs/program.aspx?id=149>.

**32.** The Banff Centre provides professional and project development support for winners of the Cyber-Pitch (now iPitch) <www.banff2003.com/sessions/cyberpitch.html>, <www.hotdocs.ca/ind_market_cyberpitch.cfm>. International new-media companies apply to an international juried competition for first-stage development of new-media projects. The short-listed candidates pitch at specific festivals, and the winners receive cash, professional development and mentorship from the Banff New Media Institute and possible prototyping support.

**33.** See <www.banffcentre.ca/programs/program.aspx?id=133> for the Screenwriters Program.

**34.** The Canadian Radio and Television Commission Proceedings include applications by broadcasters and telephone companies and interventions by the public and others interested in each decision. The proposals for the creation and administration of funds are part of these. See <www.crtc.gc.ca/eng/public pro.htm>.

**35.** Kris Cohen, paper at "The Beauty of Collaboration: Manners, Methods, and Aesthetics," Banff New Media Institute, Banff, Alberta, Canada, 22–25 May 2003.

**36.** See SmartGraphics presentations and subsequent discussion by Marc Price, "The Media Lounge: A Software Platform for Streamed 3D Interactive Mixed Media," <www.smartgraphics.org/sg04/schedule.html>.

**37.** See <www.decima.ca/publishing/Services/CNMReprint.pdf> for overview of NewMIC and <www.trlabs.ca/new/press_releases/00_05_18.html> for the partnerships' perspective.

**38.** Both Sony and Electronic Arts participants noted this.

**39.** Michael Hoch of Sony expressed this concern.

**40.** See <http://cat.eciad.bc.ca/r_and_p/newmic_awards_2002.html> for description of student awards, philosophy and content.

**41.** <www.habaneros.com/About/News/2003/NewMIC.htm>.

**42.** Brian Corrie, lead virtual reality researcher, interview with the author, Banff, Alberta, Canada, February 2004.

*In 2005 Sara Diamond became the president of the Ontario College of Art and Design, Canada's largest art-and-design university, located in Toronto, Ontario. She is a social historian and new-media scholar with degrees in Communications, History and New Media and Performance. She left the Banff Centre, where she served as the Artistic Director of Media and Visual Arts, Director of Research and Artistic Director of the Banff New Media Institute, which she founded in 1995. Diamond curates, lectures internationally and writes about new-media art history and practice. Her current creative practice occurs through CodeZebra Inc. and spans software development, performance and video. Diamond's artworks reside in such diverse collections as the Museum of Modern Art in New York and the National Gallery of Canada.*

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# Leonardo Electronic Almanac

The Leonardo Electronic Almanac is issuing an open call for papers. The LEA Editorial Board seeks proposals for the following:

**Theoretical Discussions:** original essays documenting research and critical commentary in areas of discussion such as nanotechnology, cyberart, cyberfeminism, hypertext, robotics, bio-art, artificial life and genetics. This list is by no means exhaustive, and proposals need not be limited to these areas.

**Artists' Statements and Gallery Commissions:** international artists are encouraged to submit statements or proposals for exhibiting new media artwork. Curators are welcome to propose thematic exhibitions.

LEA encourages international artists, academics, researchers and students to submit proposals for consideration. We particularly encourage authors outside North America and Europe to send proposals for articles.

Proposals should include:

- a 150- to 300-word abstract or synopsis detailing subject matter
- a brief bio (and list of prior works for reference)
- names of collaborators (if suggesting a thematic issue or curated gallery)
- any related URLs
- contact details

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