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# About Face Interface:

## Creative Engagement in the New Media Arts and HCI

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**Abstract**

By promoting divergent thinking and creative visions, new media art practices present HCI research with a platform that emphasizes creative engagement as a locus for innovative design and evaluation methods. The workshop goal is to identify attributes of a conceptual framework that positions creative engagement as a hub for future transdisciplinary research and incorporates practices and theories from the new media arts, HCI, and computer science research.

**Keywords**

HCI, aesthetic inquiry, social theory, research-in-practice, engagement, creativity support tools, socio-technical environments, evaluation methods

**ACM Classification Keywords**

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous: J5 Arts and Humanities.

**Introduction**

The two-day workshop brings together a vibrant community of researchers and practitioners from several distinct fields of artistic and scientific inquiry to explore issues of new media art practice and evaluation, and their relationship to HCI research. By focusing on participants' projects and methodologies, the discussion aims at revealing and strengthening the synergies between the research-in-practice pursued by the new media art community and HCI research activities in support of creativity and collaboration.

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### **(Re)connecting New Media Art and HCI**

*"Since the artist care in a peculiar way for the phase of experience in which union is achieved, he does not shun movements of resistance and tension. He rather cultivates them, not for their own but because of their potentialities, bringing to living consciousness an experience that is unified and total."* [2]

Rather than recognizing synergistic potentials between the arts and sciences, and supporting progressive discourse in the redesign of the physical, social, cultural, economic, and political experiences of the world, the artificial separation of arts and sciences leads to the tendency to compartmentalize forms of knowing and making. Great progress has been made in Human Computer Interaction (HCI) research initiatives to highlight the importance of the human attributes of society in technology-based research. [7] The inclusion of new media art practices in the domain of information technology and interaction design presents an opportunity to integrate aesthetic and theoretical inquiry into the socio-technical platform of current HCI research. Such a new platform would be characterized by what is usually referred to as "research-in-practice": an experimentalism and reflexivity that bring artists to link creative research and practice in a "highly responsive, iterative process where new insights are fed back quickly into the development process." [3] As such, it would provide an alternative means for investigating and developing novel tools and methods for interacting with data, understanding the influence of different narrative traditions on data collection and presentation, and challenging the pervasive WIMP (Windows, Icons, Menus and Pointing devices) of user interfaces. [6]

### **The Potential Contribution of the New Media Arts**

In our media-rich environments, marked by pervasive and ubiquitous computing, practices in new media art are no longer limited to screen-based, audiovisual, and interactive media content; they address the wider social and global context for the integration and appropriation of information technology into society. [1]

Tools and interfaces created within the new media arts community, and later largely adopted by other communities, are an example of the role that the new media arts can play as a driving force for innovation. [14] David Rokeby's "Very Nervous System" is a computer vision system used by many installation artists and stage performers; Miller Puckett's MAX, distributed by Cycling 74, and his open source version Pure Data (PD) have opened the door to real-time audio and video synthesis and analysis, as well as controlling external equipment for theatrical performances for students and professionals working in a variety of media-based fields. Char Davies' influence on the graphical user interface and aesthetic filters for the SoftImage 3D rendering software represents another interesting case, which illustrates how novel ideas from the new media arts have influenced the aesthetics of mass media and Hollywood cinema, as well as the physical navigation of virtual environments. Paul Kaiser's work with choreographer Bill T. Jones and computer programmer Shelley Eshkar has produced new techniques for real-time motion capture and visual processing. Finally, Donna Cox's visualizations of the universe have aided school children and scientists to understand phenomena like the "big bang."

### **Identifying Critical Design Issues**

By deconstructing the strategies and methods explored and demonstrated by new media art with radical experimentalism, we believe it is possible to look at new media art as a trans-genre and promote the legacy and role of the new media arts in the broader cultural context represented by the encounter between HCI research and aesthetic inquiry. Interpretative frameworks of the new media arts often fall into a type of self-referential criticism and are inadequate to understand and promote the value and implications of experimentalism outside the domain of art. [4] The gap between HCI as a formalized discipline and a critical understanding of art experimentalism as research-in-practice must be filled by a disposition to transdisciplinary investigation and the creation of new knowledge spaces. [4] To treasure the potential contribution of new media art to HCI and society at large, a transdisciplinary dialogue is needed among

different disciplines (from aesthetics to interaction design), revealing patterns that help us to navigate the conceptual complexity of art and move away from the semantics of the individual disciplines. [8]

Some elements in the new media arts emerge as critical: a focus on the design of general structures and processes rather than on fixed objects and contents; the need for methods and techniques that are fluid rather than prescriptive; the call for environments that can change and evolve; and the necessity of participative platforms enabling a mutual and open process of "affecting and being affected". [5] The art of creative engagement pursued by the new media arts sustain the emergence of new conditions, interactions, and relationships. In this way, new forms of sociability and creativity can develop, and innovation can be fostered [9,10]. Can HCI and new media art identify a common ground for such a shared design endeavor?

#### **Short and Long Term Objectives of the Workshop**

In light of these observations, objective of the workshop is to provide a peer-to-peer arena to: (1) establish and reinforce peer contacts and synergies between the new media art community and the HCI community, (2) share information about production and evaluation methods in the new media arts and how they can contribute to HCI and technical development practices, (3) share information about contextual issues addressed in the work of the new media art community, and (4) develop a consistent theoretical framework for future research.

Within these main folds, participants are invited to: (a) share relevant work and projects, (b) explore the theoretical concept of creative engagement in the new design space engendered by information technologies, (c) focus and articulate the discussion on related issues, including aspects of engagement (*e.g.* affect, embodiment, intersubjectivity), means of engagement (*e.g.* place, narrative), effects of engagement (*e.g.* sense-making, creativity, sociability), design approaches (*e.g.* metadesign, participatory design, user-centered design), and participative systems (*e.g.* reflective communities, artistic and cultural networks),

and (d) brainstorm about how to leverage the methods of the artistic and cultural community to contribute to HCI and technical research.

As a result, the workshop should provide insights and indications for: (1) methods for research focused on "creative engagement" in which new technologies and tools may be developed; (2) interface features, system components and contextual concepts that support requirements of "creative engagement"; (3) evaluation methodologies that are appropriately grounded in the "research-in-practice" approach.

Continued dialogue and dissemination of workshop results will be facilitated by publication of participants' papers and presentations. Internet communication tools will be used to network a creative community and open the dialogue to other stakeholders (individuals, organizations, funding agencies, corporations, etc.). Long-term goal is to share information, form alliances, and develop support for best practices at the convergence of the new media arts and HCI.

#### **Accepted Position Papers<sup>1</sup>**

- Theoretical Frameworks for Concepts of Creative Engagement, *Piotr Adamczyk, University of Illinois, USA*
- Multi-Disciplinary Exploration and Collaborations in New Media: Experiences in MDCN, *Amitava Biswas, et al., Hexagram Institute, Montreal, Canada*
- Mutual Engagement in Collaboration, *Nick Bryan-Kinns, et al., Queen Mary, University of London, UK*
- Hacking Creativity: Scrapyard Challenge Workshops, *Noah Brucker-Cohen, et al., Trinity College, Dublin, Ireland*
- Towards Embodied Spatial Interaction, *Erik Conrad, Concordia University, Canada*
- Socio-Technical Factors of Practice Transmission in an Online Creative Community, *Eric Cook, University of Michigan, USA*

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<sup>1</sup> Papers are available for download at:  
[http://studio416.cfa.cmu.edu/CHI06workshop\\_AboutFace/](http://studio416.cfa.cmu.edu/CHI06workshop_AboutFace/)

- Aurora Feast | Aurora Live, *Stephen Kovats and Nina Czegledy, Concordia University, Canada*
- Creative Engagement: From Instrumentality to Expressivity, *Xianhua Ding, University of California Irvine, USA*
- Sapiens Circus, *Marcelo Guimarães, et al., CERTI Foundation, Brazil*
- Environmental Awareness through Eco-Visualization: Combining Art and Technology to Promote Sustainability, *Tiffany Holmes, School of the Art Inst. of Chicago, USA*
- Creativity in User Interface Design, *Anthony Hornof, University of Oregon, USA*
- Affording Virtuosity: HCI in the Lifeworld, *Linda Kaastra et al., University of British Columbia, Canada*
- New Media Art Works, *Carmin Karasic, Boston Cyberarts, USA*
- FlowerGarden: An Interactive Visualization of Concept-Sharing, *Maria Lantin et al., Banff Centre for the Arts, Canada*
- Facing=Doing: How Can We Have Fun Saving the Earth?, *Myriel Milicevic, Interaction Design Institute Ivrea, Italy*
- Productivity, Criticality and Pleasure, *Simon Penny, University of California Irvine, USA*
- Learning to Play Together: Crossing Boundaries in Art and Design, *Dan Perkel, et al., University of California Berkeley, USA*

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