
Can We all Stand Under Our Umbrella? *The Arts and Design Research in HCI*

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Abstract

The Arts (i.e., all liberal, cultural, literary, visual and performing arts disciplines) are becoming more prominent at CHI. This SIG will take stock of what they can contribute, and how and why, and what the CHI community needs to do to more fully embrace *The Arts* to advance the leading edge of design research.

Keywords

Design research, trans-disciplinarity, Arts, Humanities

ACM Classification Keywords

H.1.2. User/Machine Systems.

General Terms

Design, Human Factors, Theory

Overview and Background

When HCI entered the home, digital media was already there as video games, desktop multimedia and rich website content. In accounts of HCI's third wave [8], our discipline authored its own transition, realizing that that values of the home were not those of the work place. While the home and other non-work arenas did call for reflexive renewal of HCI values, digital media had already brought a torrent of new cultural forms that opened up even wider research opportunities.

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In the first decades of HCI, interactive applications were predominantly understood as tools. While arguments were made for interactive computing as a new medium [11, 15], these remained a minority position for over a decade. Bødker [7] thus argued in 1990 for HCI research to balance instrumental and communicative use. A 1990 collection of papers focused on conversational computing [14]. Much 1990s CSCW research focused on computer-supported conversations within the workplace. However, as the web developed, home and leisure users were progressively enabled in the creation of persistent online content (bulletin boards had long supported technical experts in the creation of user-generated content). Eventually, developments here were welded together by Tim O'Reilly's christening of Web 2.0.

User-generated content has given rise to a wide range of innovative cultural forms and practices [3,5]. New forms of publication have historically given rise to new forms of cultural artifact. However it is not solely technological innovation that drives the emergence of new forms. The rise of the novel cannot be traced solely to the Gutenberg press, it also required a literate reading public [10] Nonetheless, it is easy to forget that the word "novel" means new and its development must have been startling. In the last five years new forms of cultural artifact have emerged at an almost annual rate. Blogs, vlogs, mash ups, machinima and tweets could be thought of as art forms if only as instances of "the shock of the new" [12]. These new forms complement and extend longer established 'expert' interactive digital forms such as computer games, internet art, interactive installations, desktop multimedia and interactive fiction. Together, these expert and amateur cultural forms are an important

focus for HCI research [1]. HCI's strong interdisciplinary basis requires that the study of such phenomena should benefit from existing relevant disciplinary practices, especially in literary and cultural studies where theorised 'readings' of such 'texts' are well established valuable practices. These benefits are already being realized through a range of critical practices that can be collectively referred to as *interaction criticism* [2]. Such criticism uses essay forms that can draw on broad aesthetic theories that transcend art forms (e.g., text, image, performance).

However, there is more to *The Arts* (i.e., all disciplines of the liberal, cultural, literary, visual and performing arts) in HCI than criticism. Many constructive designers' practices originate in The Arts, e.g., sketching, storyboarding, scenario development, role play and improvisation. Such techniques are shared with practitioners in more traditionally Arts based domains such as film, theatre, television and literature. A small but growing body of work in HCI makes explicit use of arts based approaches to such activities, e.g., improvisational role play using actors to inform designs for older people at every stage of iteration [16]. Literary techniques such as pastiche have been adopted in the creation of scenarios which draw on rich cultural sources [4, 9]. Increasingly new cultural forms such as machinima are being exploited in [3].

There are further underexplored benefits of The Arts for HCI. Since the 1980s, HCI has embraced several new disciplinary matrices [13], beginning with its second wave turn to the social [17], but much extended under the broad umbrella of HCI's third wave. Understanding developments and potential futures here calls for further disciplinary competences from the humanities,

notably philosophy and the history of ideas. Without these, HCI is at risk from etiolated disciplinary borrowings, which stunt growth through poor exposure to both the philosophical issues underlying newly appropriated disciplinary matrices, and also their relation to the wider originating historical contexts. Too often a single philosopher such as Heidegger or Wittgenstein is chosen as the poster boy for a new HCI paradigm (or in the case of Descartes, its whipping boy). While stunted scholarship is not intrinsically wrong, the failure to situate ideas within originating historical contexts brings forth distorting anachronisms that sever ideas from their original influences and motives. Such habitual amnesia even decontextualises HCI approaches that are barely a decade old [6].

Issues to be discussed

The main focus of this SIG is the uneven progress and fortunes for arts and humanities based research within CHI. The situation is complex. There have been many recent arts-supported CHI papers, but these have not yet informed much reviewing, which still applies unsympathetic standards, e.g., by looking for methodologically sound objectivity in papers where the contribution is rigorous interpretation or well grounded intellectual speculation.

Within the above general framework, the following issues could be discussed during the SIG. However, attendees will be invited to add their own topics, and the top 4-6 will be chosen for discussion during the SIG

What do the Arts Specifically Offer to HCI?

The Arts must have something distinct to offer HCI, otherwise Science is all we need. What is the nature of that distinct contribution, and how do we recognize it?

Incubate or Integrate?

Does arts-influenced HCI research need its own incubator conference, or is CHI now strong and flexible enough to assemble the expertise needed for consistent competent reviewing? If an incubator is needed, what form should this take, and who should organize it?

CHI Contribution Types: Theory and Methodology

Are CHI's contribution types appropriate for the disciplinary matrices of the arts and humanities, in particular, the theory and methodology contribution types? What implicit values are at play here, and how well do they serve the different facets of HCI?

A New CHI Contribution Form: The Essay?

What are the formal and intellectual differences between a scientific report (i.e., intro, methods, results, discussion, etc.) and a scholarly essay? In what ways is the scholarly essay on a cultural form or its production process distinct from an "Opinion Paper"? By what criteria should the community evaluate a scholarly critical essay?

HCI: Three Waves or Thirty Whirlpools?

How much consensus is there about HCI's first, second and third waves that have brought us from human factors through human actors to human satisfactors? Do we have a shared understanding of the history of our discipline? Is there one single HCI umbrella at all?

Interaction Design as a Transdiscipline

Are transdisciplinary matrices possible, or can such axiological systems only be policed within single disciplines? What does this mean for design research?

Attendees and Schedule

The core audience spans researchers with arts and humanities backgrounds and the wider community of researchers with backgrounds in technical disciplines and the human sciences who have discovered the value of The Arts, and have drawn on them in their research. However, we believe that the growing success within CHI of research drawing on The Arts has expanded the audience for this SIG. HCI researchers who currently remain focused on technical and human science disciplines may want to learn more about The Arts and HCI. The proposed schedule is:

- Introduction. Success and failure stories from the four organizers (15 minutes)
- Segue to open discussion, adding and deleting issues to/from and ranking above list (5 mins)
- Discussions on top 4-6 issues (60 minutes)
- Wrap up, future actions (10 minutes)

Summary

The Arts are beginning to fare well at CHI. Now is a good time to take stock of what they can contribute, and how and why, and what the CHI community and its leaders need to do to more fully embrace The Arts to advance the leading edge of design research.

References

- [1] Bardzell, J. (2007). Creativity in Amateur Multimedia: Popular Culture, Critical Theory, and HCI. *Human Technology*, 3(1), 12-33.
- [2] Bardzell, J. 2009. Interaction criticism and aesthetics. Proc CHI '09. ACM, 2357-2366.
- [3] Bardzell, J., Bardzell, S., Briggs, C., Makice, K., Ryan, W., and Weldon, M. 2006. Machinima prototyping: an approach to evaluation. Proc. NordiCHI 2006. ACM, 433-436.

- [4] Blythe, M. 2004. Pastiche scenarios. *interactions* 11(5), 51-55.
- [5] Blythe, M. and Cairns, P. 2009. Critical methods and user generated content: the iPhone on YouTube. Proc. CHI '09, ACM, 1467-1476
- [6] Boehner, K., Vertesi, J., Sengers, P., and Dourish, P. 2007. How HCI interprets the probes. Proc CHI '07. ACM, 1077-1086.
- [7] Bødker, S. 1990. Through the Interface: A Human Activity Approach to User Interface Design, LEA.
- [8] Bødker, S. 2006. When second wave HCI meets third wave challenges. Proc. NordiCHI 2006. ACM, 1-8.
- [9] Dearden, A., Lauener, A., Slack F., Roast, C. and Cassidy, S. 2006. Make it so! Jean-Luc Picard, Bart Simpson and the Design of e-Public Services. Proc PDC 2006. ACM, 67-76.
- [10] Eagleton, T. 1983. *Literary Theory*. Oxford.
- [11] Gaines, B.R. and Shaw, M.L. 1984. *The Art of Computer Conversation: a New Medium for Communication*. Prentice Hall.
- [12] Hughes, R. 1991. *The Shock of the New: Art and the Century of Change*. Thames & Hudson
- [13] Kuhn, T.S. 1970. *The Structure of Scientific Revolutions*. University of Chicago Press, 2nd edition.
- [14] Luff P., Gilbert, G.N. and Frohlich D.M. eds. 1990. *Computers and Conversation*. Academic Press.
- [15] Negroponte, N. 1980. *The Metaphysics of Television*. *Methodology of Interaction*. eds. R. Guedj et. al. eds. North-Holland, 311-316.
- [16] Rice, M., Newell, A.F. and Morgan, M. 2007. Forum Theatre as a Requirements Gathering Methodology in the Design of a Home Telecommunication System for Older Adults. *BIT*, 26 (4), 232-331.
- [17] Rogers, Y., Bannon, L., and Button, G. 1994. Rethinking theoretical frameworks for HCI: report on an INTERCHI '93 workshop. *SIGCHI Bull.* 26(1), 28-30.