

# Why CHI Fragmented

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## ABSTRACT

I have been active in SIGCHI since 1983, serving on the Executive Committee and many conference and program committees. After editing *ACM TOCHI* for six years, I explored the history of CHI and related fields. The “conference-centered” model unique to U.S. computer science, wherein little published research reaches journals, and uncertainty regarding HCI’s academic niche have created an unusual situation. I propose some paths forward.

## Categories and Subject Descriptors

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

## Keywords

conference, journal, research, practice, design, development

## INTRODUCTION

By 1988, six years after SIGCHI formed and five years after its first conference, today’s organization and conference structure were largely in place, managed by members many of whom are still active. By 1988 SIGCHI had sponsored Hypertext, UIST and CSCW conferences, beginning the dispersion of related research into what are now dozens of conferences. Annual conferences in other mature fields focus on community maintenance, attracting people from sub-specializations and related fields. Examples are AAA, APA, ASA, AOM and HFES in anthropology, psychology, sociology, management and human factors. Major CHI-sponsored conferences have instead followed the norm of U.S. computer science, emphasizing quality. An inadvertent consequence is a centrifugal effect: Smaller conferences are ‘spun off’ or conditions for their establishment and success are created, and participation by people in related fields is obstructed.

## CONSEQUENCES OF A QUALITY ASSESSMENT ROLE

Books are the evidence of quality work in the humanities. Journals have this role in the sciences, including European computer science. U.S. computer science uniquely considers conferences to be the final repository for most research [1, 2]. Reasons for this are discussed below, but more significant are the far-reaching consequences.

In journal-centered fields, conferences represent work in progress toward journal publication. Higher acceptance rates enable participation by researchers from other disciplines, students, and practitioners who do not aim for journal publication. In contrast, CHI researchers want academic review committees to consider our major conference papers alongside journal articles. To achieve the polished quality needed to make a case for this led to 15%-25% acceptance rates. This is a barrier to participation for researchers in other fields: If they submit work-in-progress as they do to their conferences it will be rejected, and they may be reluctant to put effort into polishing conference papers that earn little credit in their discipline. High rejection rates also push people out. Because few papers in any one specialization are accepted, only specialized conferences can provide a broad view of current activity in an area. Many rejected submissions to CHI and other major conferences are salvageable, so hundreds of papers are available for such specialized conferences, which often have a more inclusive, warmer atmosphere. Practitioners not inclined to achieve the polish desired by a tenure committee look elsewhere. Two-thirds of CHI’83 papers were from industry. Today, 80% of CHI papers have an academic first author, and 90% have an academic author.

Recognizing that the academic credentialing role conflicts with community-building and practitioner inclusion, CHI developed alternative venues, such as demos and lab overviews. However, concern about the reputation of the conference results in these venues also being highly selective. They are often screened by academics. And many practitioners *want* to participate by presenting papers.

## A SHIFTING ACADEMIC NICHE

In 1983, CHI mainly comprised experimental psychologists hired by technology companies to address newly emerging commercial interactive systems. A decade later, many of the first wave returned to academia from industry. Few joined psychology or cognitive science departments, which never widely embraced human-computer interaction. HCI established a foothold in computer science, but in many traditional departments it remains marginalized. Today many HCI researchers are moving to schools of information science or informatics.

Throughout, CHI researchers have sought acceptance as a science. Sciences do not publish applied papers in their top journals. CHI could thus not accept practitioner papers in

conferences argued to be of academic caliber. This, and the need to establish a unique identity, has led CHI to exclude work from related fields such as design, human factors & ergonomics, information systems, and marketing.

### ASSESSING THE CENTRIFUGAL STRESS

It is important to emphasize how strongly CHI differs from other umbrella conferences, and how great is the force that drives out anything not considered part of a somewhat elusive “science of human-computer interaction.” Major conferences in related fields attract people with large trade shows, timing that aligns with academic recruiting, and acceptance rates around 50%-75%. In these fields conferences have no significant standing as quality markers. CHI’s drive to establish scientific credentials for our conferences has forced us to eschew a trade show, not emphasize recruiting, hold acceptance rates to 15%-20%, and largely ignore the state of our journals.

Why is U.S. computer science different in this respect? Factors could include these: The high number of conferences. The limited shelf-life of many results, more common in engineering and other applied disciplines than in scientific disciplines, a consequence of Moore’s Law. The recently achieved ability to distribute proceedings at a conference. The willingness of professional societies (ACM, IEEE) to archive proceedings, initially in print form and now digitally. (The lack of such activity in Europe and Asia prevents conferences from attaining the same status.)

Conferences are rapid ways to disseminate information, they are socially rewarding, deadlines can be motivating. The principle drawbacks have been space limitations, which may melt as the advantages of digital proceedings build, and the lack of a serious review and revision cycle. The latter is ultimately a journal’s advantage, but it is clear that our field is inclined to try to inject revision elements into our major conferences rather than return to a journal orientation. We thus need to think about other ways to overcome the centrifugal effect of selective conferences.

First consider some groups that were pushed out. CHI’83 was formally co-sponsored by the Human Factors Society, whose members chaired and populated the program committee and program. CHI was concerned with the lack of scientific status of human factors and within a few years, most members of this journal-oriented field were gone. CSCW’88 included many program committee and program participants from the journal-oriented information systems field. They were soon gone. Recently, an “HCI in MIS” group formed with the explicit intent of bridging to CHI. Their high-acceptance work-in-progress conference sessions do not appeal to CHI researchers; their papers do not get into CHI. Prospects for success are low. A dramatic demonstration of centrifugal force is the migration of research on cognitive engineering and human performance

modeling. Originally significant CHI endeavors, these are now the focus of the largest and most recent technical groups of the Human Factors and Ergonomics Society, led by people active in CHI two decades ago.

I no longer think CHI can open up to emulate the big-tent conferences with a community-building role in other disciplines. Had CHI accepted 60% of submissions, not enough quality work would have remained to create and sustain UIST, CSCW, DIS, Hypertext, Ubicomp, Group, CSCL, CUU, HICSS mini-tracks, HFES technical groups, WWW sessions, UPA, DUX, and so on. Many would be tracks within a large CHI. But CHI followed U.S. CS, not journal-centered fields, and declared conferences archival. The other conferences, many with higher acceptance rates and more participative, warmer settings, now have constituencies. People submit directly to them.

### Proposals

In the mid-1980s, CHI became the responsibility of people in their twenties and thirties, many in industry. A new cohort of that age is evident today. In fact, about 50% of CHI 2004 attendees were students. Much could be said for turning the franchise over to them, but the current leaders, now mostly in academia with grants to obtain and students to place, will not let go any more graciously than did many of the founders who were forced out twenty years ago.

Two thoughts: SIGCHI could propose that organizers of related conferences commit to participate as an experiment in two unified mega-conferences, perhaps in 2008 and 2009. Each would organize its own program and benefit from one central conference committee. Along with ACM conferences, try to attract co-sponsored (e.g., DUX) and non-ACM (e.g., UPA) conferences. A must-attend mega-conference would provide opportunities to sample other disciplines, recruit speakers from them, and organize joint activities. Lower travel expenses would offset the drawback of more session conflicts for those who currently attend several conferences. Overlapped submission and reviewing would create some stress. A commitment to trying it twice would ensure that success would leave time to organize a continuation. Alternatively, ACM might create a new digital library entity, the ‘cleaned-up conference paper’ subject to further reviewing, revision, and extension, which would over time enable the CHI conference to revert to the traditional community-building and maintenance function by accepting far more papers. Otherwise, fragmentation is likely to continue, probably through online developments.

### REFERENCES

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