

What Makes a Good CHI Design Paper?¹

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What We Mean By 'Real Design Papers'

In the last issue, we suggested that the 'perfect CHI design paper' is a myth, not just because it is all but impossible to achieve but because there are so many ways to pursue and report design research. In this article, we suggest that there are a few ingredients that seem to be present in all, or at least nearly all, submissions that the subcommittee considered successful enough to accept for this year's CHI. Each of these are key factors in delivering design *practice* as design *research*. We hope that describing them here will help replace the imaginary 'perfect CHI design paper' as a guide both for authors and - equally importantly - for reviewers trying to identify valuable contributions to CHI.

- Demonstrate and discuss design work. Not surprisingly, one of the key features of successful design papers is that they describe and discuss something to do with design. We're always excited to see submissions that explore design practice in some form - whether it's the development of artefacts, or design processes, approaches and methods, or creative ways to engage with the settings for design, or investigations of and with materials, or explorations of designs' aesthetic qualities. We recognise, in addition, that design is an increasingly expanding field. Thus 'something to do with design' also includes design histories, critical reflections on design, service, infrastructure and activist design, as well as the whole burgeoning world of open sourced, crowd-funded, hacker-spaced, cooperatively produced, data-fuelled and user-finished designs. Moreover, we love surprises, so keep sending us the experimental, avant garde, transdisciplinary submissions that don't fit elsewhere. Overall, what we really want are papers with a contribution to design clearly at the heart of the work and which will clearly benefit from evaluations by ACs and reviewers from the design community.
- Tell us what's important. Rather than trying to tick all the boxes of the 'perfect CHI design paper', it is sufficient (and often preferable) to focus on articulating one or two aspects of a project well. Crucial, however, is to tell the reader that this is what you are doing, and to explain why your focus is important and the grounds on which you believe it should be assessed. This is not only to guide readers towards what is important, but to forestall criticism based on elements that aren't there or are less well developed. For instance, you might focus on the development of a design space for an artefact that hasn't been fully developed, or discuss the interplay between designers, makers, funders and manufacturers of a product you don't endorse, or critically analyse the gender assumptions of a service design without discussing how it is used... All could be viable topics for a successful CHI contribution. To make them work, however, it is essential that their focus is framed and justified as clearly as possible.
- Show links to other work. As design research has flourished at CHI and elsewhere, the quantity of literature related to a given project can ramify outwards indefinitely. Now that references do not count towards the CHI page limits, it is not unusual to see papers with fifty or more references. This may be a positive development in allowing recognition of the development of design research as a discipline, but it can be overwhelming to authors and lead to papers overbalanced by their literature reviews or, conversely, with nothing but long lists of un-commented references. Ultimately, an unending expansion of literature reviews could transform CHI design research from a primarily empirical community into an intertextual one. We believe

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that design papers should not be required to produce comprehensive literature reviews so much as sufficient ones. It is important to situate your work in the field, and this is usually done by reference to other key papers. Written work, however, is not the only terrain for design research. Instead, design research can also be positioned in comparison to other design outputs or practices, including, naturally, those from industry or from practitioners outside the research community altogether.

- Include a critical assessment. The idea that design research must be accompanied by a user study is a myth. Nonetheless, it is not enough simply to proffer a designed artefact (or process, or investigation, or even a user study) without any attempt to assess its strengths and limitations, or alternatively the effects it might have. Of course, user studies are one way to go about this, and the success of submissions that include them no doubt underlies the myth. Many other forms of assessment are also potentially valuable, however. This might include expert critiques from other practitioners, or analyses by cultural theorists, or considered accounts by relevant commentators, or even the reflections of the makers themselves. What is important, however, is that assessments are sincere and probing. It is rare to produce a perfect piece of work, and research papers are not marketing tools. One of the hallmarks of research is the ability to learn from failure, so it is important that accounts of research take a balanced view in assessing what they offer.
- Tell us what you learned. A corollary of the need to go beyond merely presenting a design outcome as self-evidently worthy (and, indeed, of the need to frame what is important and link to other work) is the need to explain what has been learned by producing it. Explaining what has been learned can take many forms. Research doesn't always produce facts: equally useful are new conjectures, or perspectives, or suspicions - or, for that matter, support or contradictions of existing ones. Equally, learning may be expressed through theories, or mid-level strong concepts, or annotations, or frameworks, or guidelines. It doesn't have to be, though. Some may feel that the outputs of design research - its artefacts, processes, aesthetic studies, or engagements with people and places - offer value through their specificity, that generalisation of any form dilutes that value, and that design practitioners routinely look to other design outcomes rather than generalisations as inspiration for their own work. This is fine too, so long as that specificity is identified and what it offers made clear enough for readers (and reviewers!) to value. What is essential, however it is done, is that the contributions offered by reporting a project are made clear.

These, then, are our reflections about the essential features of good CHI design papers. Equally importantly, they imply the things we think are not obligatory (reviewers take heed!). Successful CHI submissions do not have to include user studies (though they do need some form of critical assessment). They don't even have to tell the story of a complete design project (though they should have something to do with design). They do not need comprehensive literature reviews (though they do need to link to the community). They do not require grand theories or research programmes (though they need to explain why they were done). And they don't have to generalize from the specific designs to a class of systems (though they do need to explain what was learned).

There are endless possibilities for the careful articulation of research about, through, into, by, over, during, or of design, and we earnestly hope the community will continue to produce new and unexpected examples. Our aim here has been to open the doors for this, both by dispelling the myth of the 'perfect CHI design paper', and by communicating to would-be authors - and reviewers - what we think it takes to write a successful submission.