Multi-Sited Design: An Approach Towards Addressing Design-Use Relations in Transnational Processes

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ABSTRACT
In this paper, we suggest that contemporary transnational arrangements provide new challenges for the design researcher. In particular, questions of design-use relations become potentially even more politicized and complex as they enter a global stage. In HCI, we lack conceptual tools for understanding these complex webs of multi-sited technology use and design. We draw from ethnographic fieldwork in China, critical work in HCI and anthropology to suggest a starting point in encountering and dealing with some of these challenges.

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Transnational studies, collaboration, politics, design-use, participatory design, reflective design, China, creative industry

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

INTRODUCTION
Digital technologies increasingly mediate transnational relations of finance, politics and consumption. Technologies are woven into our interactions with infrastructures in the cities we live in, with local governments and city councils, but also with global systems of finance and the international corporations we work for or that sustain our access to local resources. At the same time, digital technologies become the stage of political debates over conflicting values and policies between the multiple locales they connect. Consider for example recent events surrounding Google’s announcement to discontinue the censorship of search results on their local search engine in China, Google.cn, due to sophisticated cyber-attacks that supposedly originated from within China. The announcement led to heated debates about the divergent values and ethics of Chinese and American politics. In a speech delivered at the Newseum in Washington, D.C. in January 2010, secretary of state Hilary Clinton, for example, referenced Google.cn to discuss values of a free and open Internet and China-US relations broadly; the former addressed altered responsibilities of the designer and challenged stark user-designer divides, the latter formed as an attempt to reconfigure ethnographic practice in response to new configurations such as transnational and global circulations of people, capital, ideas, representations, and media.

In melding these two approaches, we propose here the idea of “multi-sited design.” Our framework draws attention to, first, the multiple yet heterogeneous sites of design practice and, second, the role of interactive technologies as a resource for people to imagine identity and cultural belonging, across cultural and regional borders. We ground our explorations in findings from ethnographic research on interactive media practices in urban China. In our research, we were struck by the ways in which information technology provided a platform for thinking about local...
politics, economic development, and Chinese modernity; that is, the process of taking up and shaping technologies in local contexts is one that often comments upon the historical, cultural, social, and political contingencies of technology encounter and use.

**A TRANSNATIONAL SCENE OF CREATIVE WORK**

Access to and use of Internet technology in urban China underwent rapid transformation over the last 10 years. In 2006, Internet cafes still flourished across the big and small cities as hubs for Chinese youths to not only access the web but also form strong social connections. Over the last 5 years, the urban-digital landscape of China has morphed into a space simultaneously more local and transnational. Due to governmental censorship, urban redesign and increase in ownership of personal computers, many Internet cafes have disappeared or are stigmatized to further Internet addiction, e.g. [8, 13]. In their disappearance, new sites of technology use emerged. Existing urban spaces such as old factories, for example, are remodeled and turned into creative industry clusters [7], up-scale design and art studios rented out by design and art firms, individual artists, advertisement and IT corporations.

Prominent figures, who partake in these developments are new media artist, designers and entrepreneurs, who use a combination of Chinese and foreign social networking platforms such as twitter, facebook, Chinese bbs (bulletin boards), douban, renren, etc. to engage a transnational audience and provide their own accounts of past and contemporary developments. Their technology practices are transnational in that they reach audiences both local and abroad, that their contributions are often bi-lingual, addressing issues of local policy change and international debates of design practice and innovation. In addition, they themselves often travel, for art and design events, to give presentations at international conferences and for collaborations with agencies and individuals abroad.

For example, just recently, Twitter co-founder Jack Dorsey and Chinese artist Ai Weiwei, who uses twitter for his digital activism in and beyond China, held a public conversation at the Asia society in New York, on the topic of digital media and social change. The rest of us watched remotely through life broadcasting and followed the many reactions on personal and professional blogs, news websites and twitter posts. These are neither the workings of a social platform like twitter or facebook alone nor those of a lonesome artist. Rather, what unfolds is a complex system of socio-technical arrangements, negotiations of institutional, individual and national values and transnational alliances.

The scale of technology productions by cultural figures like Ai Weiwei is similarly far-reaching. Similar to Ai Weiwei, new media artist Cao Fei, for example, has received international attention through works like her digital piece “RMB city” that she developed in the virtual world Second Life. “RMB city” has ventured beyond its digital production site, and Cao Fei exhibited physical copies of the digital original in the Lombard-Freid Projects Gallery in New York, as well as during art festivals in Europe. RMB City is named after the abbreviation of China’s currency, the renminbi, people’s money or people’s currency – as Cao Fei puts it “RMB is the name for the ‘real’ life Chinese currency.” RMB city assembles a hybrid of images of the past, personal encounters with a rapidly changing city landscape, cultural references, and iconic representations thereof. For example, Beijing’s Olympic showpiece, the National Stadium (a.k.a. the Bird’s Nest), sits partly submerged and rusting off the city’s shore. Downtown, the Three Gorges Reservoir flows through the Tianmenmen Square rostrum. Atop the skyline, the People’s Observation Wheel offers a view of a giant floating panda right next to the CCTV, China central television, building designed by Dutch architect Rem Koolhaas, in the front a statue of Chairman Mao stands in the water, saluting visitors.

In 2007, during the construction period of the virtual city, Cao Fei published the following artist manifesto: **RMB City will be the condensed incarnation of contemporary Chinese cities with most of their characteristics; a series of new Chinese fantasy realism, highly self-contradictory, full with irony and suspicion and extremely entertaining and pan-political. China’s current obsession with land development in all its intensity will be extended to Second Life. A rough hybrid of communism, socialism and capitalism, RMB City will be realized in a globalized digital sphere combining overabundant symbols of Chinese reality with cursory imaginings of the country’s future.**

The expansive urban renewal of Chinese cities today that Cao Fei is alluding to in her manifesto is one of the most statistically astounding and visually arresting transformations in China. For example, prior to the Olympic Games in 2008, an estimated 5 million square meters of residential housing were slated for demolition in Beijing, which meant relocating 300,000 households (around 1.1 million people) and drastic changes in the urban landscape [5]. Cartier explores how, these large-scale urban re-designs constitute the material manifestation of ideological shifts since China’s years of opening up and building a market economy [2]. These shifting ideologies take shape in an array of design projects across the physical and material space of Chinese cities. For example, prior and during large-scale public events like the Olympic Games in 2008 and the Expo in Shanghai in 2010, a series of multimedia add campaigns spread across first and second tier Chinese cities - campaigns that often portray China’s transformation as a careful balancing act between the past and its future [13] to construct a harmonious society and economy. Recent development projects such as the new technology zones in Beijing and Shanghai and the redesign of existing neighborhoods for the establishment of China’s creative industry are simultaneously projects of image building, of transcending a reliance on manufacturing and establish “world city” status.
Cao Fei’s RMB city reacts to these pervasive narratives with a sense of mockery. In her blog, she describes RMB City as an utopian space that attempts to realize the state-narrative of achieving harmony and balance, by turning add campaign slogans like the one for Shanghai’s the Expo 2010 into a digital reality:

*The theme of Expo 2010 ‘BETTER CITY, BETTER LIFE’ shares the same implicit utopian urge incidental to any real and virtual society. In Shanghai as well as in RMB City history and the past blend with progress and the future, ancient values and traditions find their way amongst modern models and new standards of life and Chinese paradigms overlap cosmopolitan issues.*

RMB city tells a non-linear story of urban renewal to infiltrate the dominant rhetoric of positive processes of modernization that has dominated design politics in China over the last decade. The design practice that it represents is one that draws simultaneously on the materiality of digital media but also on the social, economic, historical, and political processes in relation to which those media are put to use and are encountered.

These workings and reflective engagements with politics and culture through technology remind in many ways of our own work in the design research community. Similar to our own positions, the new media designers and artists we worked with in China hold a unique and often privileged position in society, being granted higher education, disposable income and time for reflective practice. The aforementioned artist Ai Weiwei, for example, is both knowledgeable about navigating around state censorship that blocks access to twitter in China and able to travel to abroad, which remain refused to many others in China because of things such as the lack of financial resources, governmental connections, technology access and denied visa applications. Similarly, the celebrated Chinese blogger Isaac Mao holds a special position in our interactive world: he speaks at TED (Technology Entertainment Design) China events, works with Chinese and foreign enterprises in Shanghai and Hong Kong, presents at the European ARS ELECTRONICA new media art festival, is active on twitter and in the blogosphere. Isaac has been called the ultimate Chinese digital guru, maintaining interests in commerce, electronic communication, and, increasingly, network politics. What cultural figures like Isaac Mao, Cao Fei and Ai Weiwei have in common is the formation of professional and personal ties across both digital and urban sites and within a network of transnational relations. Many Chinese entrepreneurs, bloggers and artists like them have studied and/or worked abroad and continue to leverage their ties to these places. They also share a commitment to participate in China’s broader “cultural” project both as enthusiasts and critics. They mostly communicate bi-lingual in order to reach both local and international audiences.

Isaac, in particular, has been assigned a multitude of roles: blogger, venture capitalist, entrepreneur, software architect and researcher of ICTs. Over the last years, Isaac developed an ideology that he terms sharism, inspired by both the idealistic ideas of open source sharing, new media theory and the tech business world. With sharism, Isaac speaks about a networked creativity, an ultimate higher state of being that we as humans can achieve through the sharing of ideas, data, through engaging with conflicts openly and the opening of information with no limits: “*sharism defines every human as a social neuron, the more we connect to each other, the more we see a higher level of intelligence*.”

Isaac’s motivation for developing the sharism ideology steams in part from the ways in which information and communication technologies have been designed and implemented since their inception. He suggests that our technological infrastructures today connect us in new ways: “*people are not just single individuals. We are living in separate islands, but we are creating a new topography.*” Isaac challenges us to engage not only the opportunities, but also anxieties and responsibilities we have to face in our age of digital connectivity: “*you have to loose control first in order to gain it.*” By opening up all our information, our position, our contact data, our thoughts and plans, “*more people in the cloud know where they are at the same time as the authorities. You are protected even as you are tracked*.”

**MULTI-SITED DESIGN**

As a starting point to analyze these complex transnational webs of design practice, we draw from recent literature on critical computing in HCI. We intend to show how if we meld these approaches from the HCI tradition with the multi-sited ethnography approach from the anthropology tradition, we can provide a new reflective lens towards design-use relations in contemporary transnational arrangements.

Over the last 30-40 years in HCI research evidences a critical and reflective engagement with the relationship between the designer and user of a technological system. One of the first approaches towards challenging use-design binaries, was Participatory Design. To briefly remind us, the original motivation of PD was to engage the politics of technology design and manifestations of power in design-use relations. Early efforts were motivated by altered labor conditions due to the introduction of technological systems into the workplace. One of the first approaches towards challenging use-design binaries, was Participatory Design. To briefly remind us, the original motivation of PD was to engage the politics of technology design and manifestations of power in design-use relations. Early efforts were motivated by altered labor conditions due to the introduction of technological systems into the workplace. For example, ground the motivation of their work in addressing the imbalance in access to computing expertise between managers and workers. The political agenda that was behind PD is also reflected in the documents and publications its practitioners produced, such as Bjørkness et al.’s [*Computers and Democracy — a Scandinavian challenge.*](https://www.hci.org/chi/2011/workshop/papers/artikel-8.pdf)

Recent approaches that evolved from these deployments of a critical lens towards design often see themselves in line with earlier approaches like PD in terms of their commitment to a critical engagement with the designer’s
authority and politics of design. This is particularly pronounced in Sengers’ et al. [17] approach towards reflective design, “our approach is made possible first of all, by the foundation laid by participatory design. PD advocates changing not just systems, but also practices of system-design and –building, in order to better support democratic values at all stages of the design process... From participatory design, we draw several core principles, most notably the reflexive recognition of the politics of design practice and a desire to speak to the needs of multiple constituencies in the design process.” Reflective design, then, perhaps even more explicitly than the prior efforts in PD, calls upon the responsibility of the professional designer and design researcher to reflect on the values design processes inscribe into material artefacts [17, 18]. They call upon designers to identify unconscious values and assumptions that are built into the ways in which we conceive design problems [17].

This manifested similarly in such as seamless design [4] as well as in alternate conceptions of mobility and ubiquity beyond efficiency [2, 20] and science and technology studies [19]. Suchman [19], for example, urges designers “to identify [their] participation in the various mediations that define the production and use of new technologies, and taking some responsibility for them”. She suggests “moving from a design from nowhere to understand that a vision of the world is a vision from somewhere.” Suchman, here, focuses our attention towards a different notion of participation, one where the designer acknowledges not only her role in the material production, but also in the social relationships that are forged as part of the design work. This suggests thinking of the position of the designer not only as one engaged with material production or technological development, but also as being conscious of the kinds of relations, social, cultural, political and economic, one enters – and how these might evolve in contemporary transnational configurations.

At the core of these approaches lies seeing design-use relations and the kinds of other cultural, social and economic processes they intertwine with as acts of collaboration. We see this also reflected in recent work in anthropology that has challenged the dichotomy between researcher and subject, and particularly pronounced in efforts around multi-sited ethnography and its uptake in anthropology. The framework of multi-sited ethnography was developed by anthropologist George Marcus in the mid-1990’s, in response to a growing interest across disciplines in the relationship between local particularities and transnational movement of people, media and ideas [9]. Marcus located the emergence of multi-sited ethnography within two broader developments: first, the unfolding of new arrangements, for which past narratives were not fully adequate, such as transnational migration, time-space compression, and globalization; and second, new spheres of interdisciplinary work that developed new vocabularies for their analysis of these evolving arrangements.

He suggests that the task of multi-sited ethnography lies not in locating situated practice within a larger context or to simply visit multiple sites, but rather in teasing out the heterogeneous relations between multiple locales. The sub-motivation of Marcus’ project is to replace the anthropologist-other binary with a different kind of relationship, one of collaboration. This entails “seeking epistemological mutually interested alliances with partners and counterparts as subjects... this involves understanding the multi-sited field emerging from strategic collaborations with which fieldwork begins” [9].

Drawing from critical approaches in HCI and multi-sited ethnography, we suggest to approach design-use relations as acts of collaboration. In prominent approaches towards research and designing technologies for places other than the designer’s home (often construed as the west) such as ICT4D (ICT four development) and cross-cultural collaboration, the “new” user is often figured as the cultural and spatial other. Rather than locating the user as the culturally and spatially other, following Marcus’ approach and the critical work coming out of HCI, we suggest thinking of the design-use relationship as one of “encounters in distributed knowledge systems.” Both ethnographer/designer and subject/user, then, are seen as nodes in distributed knowledge systems, rather than as one holding authority over the other through his/her knowledge production. Rather than thinking of ethnographer-subject/designer—user relationship as one studying the “other,” the ethnographer/designer understands to enter a collaboration (a trope quite familiar to technology design researchers who solely work - like the anthropologist - along lonesome paths) with certain sites. The designer/ethnographer carries responsibility to explicate the view to which he/she commits [9, 17, 19]. What this allows us to see then is that the “other” and a spatial configuration of here versus there is no longer simply out there and stable container for design or ethnographic interventions.

**Conclusion**

In this paper, we meld reflective approaches towards design-use relations with approaches in transnational studies from the anthropology tradition. Building on this prior works, we suggest approaching the transnational sites one enters today for design projects and/or research, as sites of collaboration. Rather than framing others as subjects or users of technologies alone, we suggest considering them both technological and cultural co-producers.

The framework of multi-sited design synthesizes across these previous efforts that developed in anthropology and HCI research. As such, its analytical focus goes beyond practices and sites of material production (e.g. in-between design and use) to include cultural and social production. From a practice-oriented perspective, multi-sited design

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1. see Irani et al. 2010 for an overview of the problematic use of taxonomic models of culture such as Hofstede’s work (2005) in ICT4D research.
uncovers not just the increasing complexity of the fieldsite (as did multi-sited ethnography), but also the role of design processes and outcomes as technology takes a central stage in globalizing and transnational processes. By multi-sited design, we do not mean simply design practice that spans multiple locations or designed artifacts that travel into new places to find new users and usages. Instead of locating design as practice shaped by larger social and cultural systems, we suggest that in and through “designing” the social, cultural and political are produced in a multi-sited fashion.

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