HCI in China: Research Agenda, Education Curriculum, Industry Partnership, and Communities Building

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CCS CONCEPTS

• **Human Computer Interaction** →
Human Computer Interaction

KEYWORDS

HCI; China; research agenda; education curriculum; industry partnership; local community building

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ABSTRACT

Human Computer Interaction (HCI) is experiencing explosive growth in both Chinese industry and academia. We propose to organize an international workshop to coordinate and unite the ongoing efforts, and to facilitate collaboration between local communities with the global HCI community. This extended abstract describes the background, goals, organizers, themes, and plans of the proposed workshop.

1 BACKGROUND

HCI historically is an interdisciplinary field that emerges only after a strong presence of computer technologies in academia and industry, and that is what is happening in China. Industry has a huge demand on HCI professionals [[10]] due to the large user population and the advancement of technologies in particular domains (e.g., mobile pay, drones, etc.); academics in China, though scattered, are also more active in the global HCI community [[1], [5], [2]]. ACM SIGCHI is also supportive for China, among Asian countries, to develop an active research community, a suitable education curriculum and research agenda, and a model of academia-industry partnership [[1]]. In fact, as CHI 2021 will be held in Asia, now it is time to organize, coordinate, and unite the ongoing efforts from the faculty, researchers, students, and other stakeholders in the global Chinese community, and to plan for the future.

This workshop brings together people who have wrote about, studied, and practiced in the HCI research and education in China. More importantly, the organizers have all dedicated a significant amount of effort to organizing and serving HCI communities and events for Chinese researchers and students (most inside China and some outside), where these communities have flourished for both the Chinese audience and the global HCI community. They are leaders or distinguished members of SIGCHI China Chapter and International Chinese Association of Computer Human Interaction (ICACHI).

During the past 14 years, SIGCHI China Chapter, led by Prof. Feng Tian (co-organizer of this workshop), is dedicated in promoting HCI in mainland China. It works closely with the Technical Committee of HCI under China Computer Federation (CCF) in China, which is the equivalent of SIGCHI under ACM. SIGCHI China Chapter has co-organized the China HCI annual conference (**CHCI**) in China together with CCF for 14 years. CHCI is the leading national conference for local Chinese community and Chinese HCI topics and attracts in increasing numbers of high-quality papers and participants. For example, CHCI 2018 accepted about 70 research papers in Chinese after a peer-review process and attracted more than 300 participants. At the same time, the International Chinese Association of Computer Human Interaction (ICACHI), founded by Prof. Xiangshi Ren (co-organizer of this workshop) in 2012, has been dedicated in facilitating collaboration among researchers, academics, students and practitioners in the global Chinese community. Supported by ICACHI, the annual conference **Chinese CHI** (latest one co-hosted with CHI'17 at Denver) has become a leading international forum that attracted the global Chinese researchers as well as the researcher from other community with an increasing numbers of paper submissions and participants every year.

In addition, the co-organizers of this workshop have also organized numerous annual **ChineseCSCW** conferences, seminars, and summer/winter schools on HCI topics.

There are three major goals of this workshop: 1) to bridge the growing local HCI community in China with the international HCI community; 2) to nurture the local Chinese HCI community including academics, students, and practitioners; 3) and to attract more local HCI researchers to attend the CHI conference, and vise versa. Parts of this workshop, we will present some key activities that SIGCHI China Chapter and ICACHI have organized, and plan to organize for the upcoming years. We will discuss what we have learned from past experience, and outline the opportunities for future. In the rest of this proposal, we describe organizers' background, themes, and detailed plans of all the stages for the workshop.

2 THEMES

We will use our interests and knowledge, and those of the submitters to identify a few themes in which to identify challenges and opportunities for the future. Examples of possible themes are listed here.

- **HCI Education in China.** What are the good examples of HCI curricula in the global community? What are the opportunities and challenges in the current HCI education practices in China?
- **HCI Research Highlights in China.** What are the strengths and weakness of HCI research in China? Can we come up with a collective research agenda that can contribute the uniqueness of Chinese HCI to the world?
- **Industry Partnership.** What is the current status of the HCI academia-industry relationship in China? Where can we improve?
- **Fundamentals/History/Disciplines in HCI.** What can we learn from the history/disciplines taxonomy/foundations of HCI as guidance for the Chinese HCI context?
- **Bridge Chinese HCI Community with Other Communities.** What good experiences in community building can we learn from the other HCI communities? How can we facilitate the communication and collaboration between communities, in particular with other Asian HCI communities?
- **Future Event Planning.** What kinds of future events should we organize to achieve the goal of building a successful Chinese HCI community? Who want to participate in such services?

3 ORGANIZERS

We will use our interests and knowledge, and those of the submitters to identify a few themes in which to identify challenges and opportunities for the future. Examples of possible themes are listed here.

Feng Tian is a Professor at the Institute of Software, Chinese Academy of Sciences (ISCAS). He is the chair of ACM SIGCHI China Chapter. He co-directs the Beijing Key Lab of HCI, the largest lab specialized in HCI related research in mainland China. He got his Ph.D. from ISCAS in 2003, and was a visiting professor at UC Berkeley in 2009. In the past ten years, he worked on organizing activities to attract more researchers and students to join the HCI community and promoting HCI research in China. He constantly served as co-chair for China HCI annual conference (CHCI), China Symposium on Human Computer Interaction, China Young Distinguished HCI Researcher Workshop, etc.

Xiangshi Ren is a Professor in the School of Information and director of the Center for Human-Engaged Computing (CHEC) at Kochi University of Technology. He is the founding president and honorary life-time president of the International Chinese Association of Computer-Human Interaction (ICACHI). He was named one of the Asian Human-Computer Interaction Heroes in ACM CHI 2015. He was a visiting professor at the University of Toronto, visiting faculty researcher at IBM Research (Almaden), and visiting professor at several universities in China. Currently, he is an adjunct professor at Jilin University, Beijing Normal University. He is a Senior Member of the ACM and of the IEEE.

Xiangmin Fan is an Associate Professor in the HCI Lab at the Institute of Software, Chinese Academy of Sciences (ISCAS). He is also an Adjunct Associate Professor at the University of Chinese Academy of Sciences. His primary research focuses on using both more traditional Human-Computer Interaction (HCI) approaches and cutting-edge Artificial Intelligence (AI) techniques to improve the interaction between humans and machines. Xiangmin received his Ph.D. in Computer
Science from the University of Pittsburgh. He serves on the SIGCHI China Chapter, and the Technical Committee of HCI, China Computer Federation (CCF).

Wei Li is the team lead and architect of AI Team at Huawei Toronto Research Centre. He is the president of the International Chinese Association of Computer-Human Interaction (ICACHI). Prior to joining Huawei, he was a Principal Research Scientist at Autodesk Research. He got his Ph.D. in Computer Science from the University of Waterloo. He was a Sr. Software Engineer at the Software Business Division, Lenovo Group Ltd. and at Institute of Software, Chinese Academy of Sciences.

Haipeng Mi is an Associate Professor at Department of Information Art and Design, Tsinghua University. He is the co-director of the X-Studio in the Academy of Arts and Design of Tsinghua University. He has over 30 peer-reviewed publications in the field of HCI, mostly in UIST and Ubicomp. He serves as an Associate Chair of committee of HAI 2017-2018, and Program Co-Chair of Chinese CHI 2017-2018. Haipeng has received his Ph.D. in Electrical Engineering and Information Systems in 2011 from the University of Tokyo. He has also received a B.Sc. in Physics and an M.Eng. in Electronics Engineering from Tsinghua University in 2005 and 2008, respectively. Before joining Tsinghua, he was an Assistant Professor at Initiative of Interdisciplinary Information Studies, the University of Tokyo.

Tun Lu is an Associate Professor at the School of Computer Science, Fudan University. He earned his Ph.D. from Sichuan University in 2006 and was a visiting scholar at HCI Institute CMU in 2015. He has been actively serving the Chinese and international CSCW & HCI community in recent years (e.g. co-organizer of CSCW in China and beyond workshop at CSCW'17, co-chair of ChineseCSCW'17 & 18, and AC of CHI'19 etc.). He has published over 40 peer-reviewed publications in the field of CSCW, HCI & UbiComp. He shared a Best Paper award at CSCW'15 and an Honorable Mention award at CSCW'18. He is a senior member of CCF, a member of ACM and IEEE. He is a standing committee member of CCF Technical Committee of Cooperative Computing.

Chun Yu is an Associate Professor in Department of Computer Science and Technology in Tsinghua University, where he got his PhD degree in 2012. He is keen to research computational models and algorithms that can facilitate the development of high-efficiency multi-modal user interface, such as mobile phones, large displays, VR/AR headsets and so on. He has published more than 30 papers in prestigious conferences such as CHI and UIST, and won 7 papers awards. Chun Yu has been working closely with industrial partners. A number of his researches have been transferred into products, which serve millions of users.

Dakuo Wang is a Research Scientist at IBM T.J. Watson Research Center. Outside his research interest in human-AI collaboration [[9], [12]] and collaborative editing [[7], [13]], he has been actively volunteering in multiple steering committees for nurturing the Chinese HCI community, such as ACM SIGCHI China Chapter, ICACHI, CHI2019 Co-Chair (Social Media). The events that he has organized or participated including Chinese CHI workshop 2018, and 2019. This year alone, Dakuo has given more than a dozen invited talks, guest lectures, and co-hosted workshops in universities and companies in China, despite he is based in the U.S.

4 PRE-WORKSHOP PLANS

Participants will be recruited from those who have published on this topic and from participants and co-organizers in previous events on this topic, including successful workshops, SIGs, and panels on HCI in China at CHI 2010, 2014, 2015, 2016 and 2018 [1, 2, 3, 4, 5, 6, 11, 14]. We will also distribute the calls for participation through the SIGCHI China Chapter, ICACHI, and CCF HCI committee. We look to ensure a balanced mix of participants from academia and industry as well as from Chinese institutions and oversea organizations. Our call identifies several thematic interests of the organizers. The workshop content will be shaped by the position papers and study results that are submitted. The organizers will cluster the submissions into tentative themes to form the basis of the initial breakout groups. Position papers will be shared in advance and presented as posters or oral at the workshop. We will also invite experienced HCI scholars and practitioners to give keynotes at the workshop.

Table 1: Frequency of Special Characters

Time	*Activity*
8:30 - 9:00	Arrival, poster setup and viewing
9:00 - 9:15	Welcome and introduction to the goals and schedule
9:15 - 10:00	Keynote Speaker 1
10:00 - 10:45	Keynote Speaker 2 / Selected position paper present
10:45 - 11:00	Coffee break and poster viewing
11:00 - 11:45	Keynote Speaker 3 / Selected position paper present
11:45 - 12:30	Selected position paper presentation
12:30 - 13:45	Lunch
13:45 - 15:15	Panel: Keynote speaker and workshop organizer Q&A
15:15 - 15:30	Coffee break and poster viewing
15:30 - 16:45	Group discussions
16:45 - 17:00	Future plans and wrap up

5 WORKSHOP STRUCTURE

We plan to include three main parts in the one-day workshop (Table 1).

• **Keynote speech:** we plan to invite 2-3 world leading experts in HCI research and education to give keynote speech in the morning session. They will share their success experience in HCI research and education with the audiences, and present new thoughts and future visions to provide attendees with inspiration for research and teaching.

• **Position paper presentations:** authors of accepted position papers will attend the workshop to present their work, share their experiences and interact with audiences after their presentations. We expect the position papers to cover a wide range of topics, including but not limited to the themes we listed above.

• **Panel:** the audience, keynote speaker, and workshop organizers will discuss or brainstorm about HCI research opportunities, HCI education, potential collaboration opportunities, industry partnership, and other possible topics, guided by a group of recruited panelists.

The size of the workshop will be limited to 50 participants, and it will be conductive to discussion.

6 POST-WORKSHOP PLANS

This workshop follows a handful of CHI workshops, SIGs, panels, courses, and paper sessions on related topics, as well as similar discussions in related fields. The workshop will pull some of this work together and get the word out. We will post the output on our workshop website, such as HCI curricula, research agenda, course resources, speakers' videos, and a workshop report. We also plan to submit a workshop report to Interactions, Communication of the ACM, a special issue of a journal, or possibly a CHI 2020 paper.

In addition, we will organize a series of workshops, panels, summer/winter schools, and local meet-ups based on the interests solicited from this workshop.

7 CALL FOR PARTICIPATION

Chinese IT industry has a huge demand on HCI professionals due to the large user population and the advancement of technologies in particular domains (e.g., mobile pay, drones, etc.); meanwhile, HCI academics in China, though scattered, are also more active in the global community in recent years. ACM SIGCHI is putting lots of resources in supporting Asian countries (including China) to develop an active research community, a suitable education curriculum and research agenda, and a model of academia-industry partnership. CHI 2021 in Japan is a move of such support. It is time to bring early endeavors sit together to unify efforts and accelerate progress by sharing practices (good or bad) and build common understanding.

The workshop will settle on a manageable set of themes based on submissions. Examples could include:

8 IMPORTANT DATES

- CFP released date: Dec 15, 2018
- Position papers due date: Feb 12, 2019
- Notification of acceptance date: Feb 28, 2019
- Workshop date: May 4 or 5, 2019

- **HCI Education in China:** What are the good examples of HCI curricula in the global community? What are the opportunities and challenges in the current HCI education practices in China?
- **HCI Research Highlights in China.** What are the strengths and weakness of HCI research in China? Can we come up with a collective research agenda that can contribute the uniqueness of Chinese HCI to the world?
- **Industry Partnership.** What is the current status of the HCI academia-industry relationship in China? Where can we improve?
- **Fundamentals/History/Disciplines in HCI.** What can we learn from the history/disciplines taxonomy/foundations of HCI as guidance for the Chinese HCI context?
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- **Future Event Planning.** What kinds of future events should we organize to achieve the goal of building a successful Chinese HCI community? Who want to participate in such services?

Participants should email a position paper of 1000 to 2500 words by February 12, 2019 to *Xiangmin Fan* (xiangmin@iscas.ac.cn), cc *Dakuo Wang* (dakuo.wang@ibm.com). The submission should include a description of its contribution to the workshop topic and identify one or more thematic interest of the authors. Quality and fit will determine acceptance and contribute to selection a set of themes to focus on.

CHI requires that one author register for the workshop and at least one day of CHI 2019. Depending on the submission levels, possibly only one participant per accepted submission can attend. More information about the workshop is at www.chinachiworkshop.com

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