**STATEMENT OF PURPOSE**/Joey Chiao-Yin HSIAO

My interest in *Human-Computer Interaction* (HCI), especially the *Social Computing* aspect,was enhanced by two significant social movements in my motherland Taiwan: “ a protest over death of an abused soldier” and “the Sunflower Student Movement”. Both of these involved hundreds of thousands of participants and yet ended peacefully having been debated with great balance via online communities. Technology played the key role and especially computer-mediated human-human interaction in moderating the events to acceptable outcomes. This highlights the value that HCI design may bring to society: **“How to utilize social technology in real time to support events involving a large number of participants, such as social movements or rescuing natural disasters while retaining a reliable record of how they unfolded and concluded?”** The question led me particularly to the topics of *crowdsourcing, computer-supported cooperative work,* and *cross-cultural online interaction*. Ultimately, I aim to continue my academic research and to contribute to education in HCI and social computing in a post doctoral setting.

I have keen interest in how people interact and how resulting relationships can be harnessed for good. My belief is that social relationships can be an excellent source of motivation to mobilize people in quality crowd-based work. Currently, I am working on friendsourcing with Prof. Hao-Chuan Wang of National Tsing-Hua University, who establishes the first lab for social computing in Taiwan. In an initial study, we found that requesters willingly pay over the odds for work done through friendsourcing, which is counter-intuitive as crowdsourcing researchers and practitioners tend to consider friends’ help to be free. This primitive finding has been now submitted as a poster to *ACM CSCW ’15*. We are now working on a hybrid crowd-powered document editing system, which combines regular crowdsourcing and friendsourcing in order to direct microtasks of different properties and requirements. For example, grammar checking requires only language skills while editing of personal content may work better when social relations exist. A system that carefully blends and leverages regular crowdsourcing and friendsourcing is likely to generate value that each of them cannot generate independently. Furthermore, we plan to test the social-driven editing system with users from different countries, to see how culture impacts on behavior toward friends and strangers (i.e., crowds) and demonstrate the flexibility of the system in editing multi-language documents.

I have worked in my master’s degree program on crafting intelligent machines to interpret human behavior, focusing on Social Signal Processing in face-to-face conversational engagement. The traditional approach of social signal analysis used sophisticated mathematical models to model and interpret social behavior. I proposed a more flexible framework to involve human intelligence for assessing face-to-face conversational engagement. The work was accepted by *AAAI-12 Activity Context Representation Workshop*, and was developed into my master’s thesis eventually. In addition I had the opportunity to visit Carnegie Mellon University (CMU) Silicon Valley for collaborative research between National Taiwan University and CMU. I joined a project led by Prof. Ted Selker on Auditory Presented Social Information. We aimed to understand how audio channel presents three pieces of social information - speaker identity, presence, and entry/exit - in an intelligent teleconference system. I carefully designed the icons according to syntax (sound and placement) and semantic (relationship to the conversational channel). The work proved that information from audio channel can improve users’ sensory experience in the interaction. The paper was accepted by *INTERACT ’13.*

In addition to expertise on technology development, I realized that computing machines alone are not enough to satisfactorily realize a computer-mediated communication experience to the users. These computer-based communication channels need elegant design to better integrate them with the communication processes. When working on Reminiscence-Aiding Interface project, I and my colleagues explored the effects of soundscape in aiding reminiscence, i.e. recalling and telling past stories. We aimed to see how sound, the always-unfinished digital artifact, can help users record their life. Interestingly, we found that reminiscence not only helps people recall their stories, but even motivates them to be more sensitive to what is happening around them in the present. The unique personal meaning carried by sound can be extended to enhance media communication. The series on the soundscape project were accepted as posters in *ACM DIS ’12* and *ACM CHI ’13*, and as a full paper in *IASDR ’13*.

I believe that an outstanding academic is not only excellent at research, but also is devoted to the betterment of the research community. I have TAed “Introduction to Computer Science”, an introductory course for CS freshman, and “User-Oriented Innovative Design”, an interdisciplinary course for engineering and design graduate students. Additionally, I served as the program chair for OpenHCI Workshop ’13 (http://www.openhci.com/2013), the biggest annual student-organized HCI event held in Taiwan. I led more than 20 graduate students from more than three different universities to complete the work and deliver the event very successfully. All these experiences provide me with the foundation on which to build my professional competence.

For some time I have been interested in establishing if cultural differences have anything to do with the state of the art of social computing. As an Asian I feel a responsibility to bridge the cross-cultural gap. An environment with high multi-cultural composition is necessary for me to earn cross-domain knowledge of information technology. CMU has the top computer science department in the world, and provides the most comprehensive environment for technology-oriented research. HCI Institute in CMU has a strong research background in all subdomain of HCI, emphasizing the insights from diverse domains. All these resources can help me cultivate outstanding skills to take research as a life-long career choice. Based on my research interest in Social Computing, Professor *Jeffery Bigham*, Professor *Steven Dow*, and Professor *Niki Kittur* should be my best supports. Your cross-domain collaboration and resources can best contribute to my research goals.