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

My interest in *Human-Computer Interaction* (HCI), especially the *Social Computing* aspect,was motivated by two significant social movements in my motherland Taiwan: “protest over death of an abused soldier” and “Sunflower Student Movement”. Both of the movements had hundreds of thousands participants and eventually ended peacefully, and notably, they were raised and maintained via online communities. Technology plays an important role in the success of the significant events. Upon witnessing the two incidents initiated by online communities, I have been impressed by computer-mediated human-human interaction and the value that HCI design in this space 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, and keep track of the truth of the events?” The question led me particularly interested in topics of *crowdsourcing, computer-supported cooperative work,* and *cross-cultural online interaction*. Ultimately, I aim to continue my research in academics and to contribute to the education of HCI and social computing after PhD.

I have a tremendous interest in how people interacts and how their relationships can be utilized. My belief is that social relationships can be an excellent source of motivation to mobilize people for quality crowd-based works. 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 are willing to pay more than what workers expect in friendsourcing, which is counter-intuitive as crowdsourcing researchers and practitioners tend to consider friends’ help 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 micro-tasks 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 obtain. Furthermore, we plan to test the social-driven editing system with users from different countries, to see how culture impacts on behaviors toward friends and strangers (i.e., crowds) and presenting the flexibility of the system on editing multi-language documents.

I have been working on crafting intelligent machines to interpret human behaviors, focusing on social signal processing of face-to-face conversational engagement when pursuing my master’s degree. The traditional approach of social signal analysis used sophisticated mathematical models to model and interpret social behaviors. 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 developed into my master’s thesis eventually. Besides, I also 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 successfully showed 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 developing, I realized that computing machines alone are not enough to realize computer-mediated communication of satisfying experience of 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 cannot only help people recall their stories, but even motivates people to be more sensitive to what is happening around them in situ. And the personal meaning carried by sound can be extended to mediate communication, and therefore creates more new experiences. The series of 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 devotes herself to serve and nourishes 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 have 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 concrete basis to receive higher training to teach even more professional knowledge.

I have long been wondering if cultural difference has anything to do with the state of the art of social computing. As an Asian, it is my inherent 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 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. Based on my research interest on Social Computing, Professor *Jeffery Bigham*, Professor *Steven Dow*, and Professor *Niki Kittur* should be the best supports to my research. Your cross-domain collaboration and resources can best nourish my research.