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Apply for: PhD in Human-Centered Design and Engineering, University of Washington

**STATEMENT OF PURPOSE**

My interest in *Human-Computer Interaction* (HCI)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 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 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.

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.

The Department of Human-Centered Design and Engineering (HCDE). Also, the cross-domain research group dUb also provided an excellent cradle for new researchers to incubate and exchange their ideas. Based on my research interest on HCI, Professor *Kate Starbird*, Professor *Sean A Munson*, and Professor *Gary Hsieh* should be the best supports to my research. As an Asian, it is my inherent responsibility to bridge the cross-cultural gap. Thus, an environment with high interdisciplinary and multi-cultural composition is necessary for me to earn cross-domain knowledge of computer science and social science. PhD in HCDE emphasizes the insights from diverse domain. Your cross-domain collaboration and resources can best nourish my research.