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THE SILVERFISH

Jan

Vol VI



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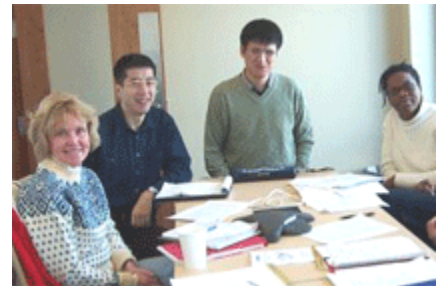
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Got Braille? A Brief Introduction to My Research Assistantship with the Tactile Graphics Project

By Beverly Slabosky

There are approximately 10 million blind and visually impaired people in the United States. Did you know that only an estimated 10% of people that are blind or have low vision read Braille? Blind students have a tremendous educational disadvantage compared with their sighted peers when it comes to accessing information in science, engineering, and mathematics materials. Technological advances such as screen readers, speech synthesis, automated Braille translation, and paperless Braille devices have dramatically increased access to textual information. However, access to graphs, bar charts, diagrams, and other graphical images frequently used by scientists is still very limited.

I began a Research Assistant beginning Autumn 2003 working with Associate Professor Melody Ivory on the Tactile Graphics Project, which is a joint effort with CSE (Computer Science and Engineering) and DO IT (Disabilities Opportunities, Internetworking and Technology), which is located right here on campus. My role in the project has been to coordinate an observational study of Braille transcribers, which is currently awaiting approval from the UW Human Subjects division. The objective of the study is to determine how transcribers are currently producing tactile graphics so the CSE team members can create software that will better support their work. When we receive approval, I will be seeking transcribers with at



From left: Director of Do Sheryl Burgstahler, visit scholar Mamouru Iwabu Sahngyun Hahn, Melody and Richard Ladner

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least one year of experience to participate. There are two parts to the study. First, we are asking transcribers with and without tactile graphics experience to fill out an online questionnaire. The questions are designed to capture information about transcription experience, demographic information and preferred transcription methods. The second part of the study will only involve participants who are experienced making tactile graphics. I will visit them where they perform their work, which may be at their home, and videotape them transcribing Braille text and two graphical images.

The project started after Sangyun Hahn, a blind PhD student in CSE, had extreme difficulties obtaining a required textbook translated to Braille, which contained hundreds of graphics important to understanding the text. Sangyun, along with Professor Richard Ladner, decided to turn this frustration into his research project. Now Sangyun, along with other CSE researches, is focusing on image classification and image processing, which will lead to the development of a Tactile Graphics Assistant. The goal of the TG Assistant is to make graphical images much more accessible to students at all levels of education. It will be designed as an add-on to Adobe Photoshop and Illustrator and provide automatic ways to transform visual graphical images to tactile images, which are designed to be read with the hands. These images will be printed on a Braille embosser especially designed for tactile graphics.

Before this Research Assistantship, I didn't know much about research within the iSchool or HCI (Human Computer Interaction). I did know that I wanted to be involved in a project that worked towards real-world results in reducing barriers to information access. I worked for years with low-income communities in Seattle and I have enjoyed linking my past work experiences with my present interest in Information Science. I encourage other students to take advantage of your time at the iSchool and investigate research, internships and

volunteer positions that speak to your individual passions. It is not always easy to explore different interests in the nitty-gritty 9-5 world, but it is never too late to start.