

## Personal Reflections

My disability simulation was experiencing someone with finger disability. Specifically, the index finger and the middle finger, and the ring finger and the little finger are born to be jointed together, which are hard to bend. We used transparent tapes to bind the fingers of my right hand to simulate this disability.

I was assigned several tasks which are common for a college student: writing on white board, taking notes with a pen on paper, typing keyboard, and using chopsticks. The first two tasks were not very difficulty for me because holding a pen to write doesn't require very high dexterity and grip. I experienced the insight of "don't underestimate the ability of people with disability to adapt" myself and I was amazed by my ability to getting used to writing in this way after so little time. However, the last two tasks were almost missions impossible for me. Because of the increased surface area of the tips of my "new fingers" (each was constituted of two fingers being bind together), I kept accidentally pressing the key around the targeted one when I was typing. In addition, the difficulty to bend the fingers exacerbated the situation. It took me more than three minutes trying to type the username and passphrase for my IU account for five times, and I gave up in the end with great frustration. Using chopsticks was also almost impossible because the structure formed by the three fingers cannot exert the force that can manipulate the chopsticks agilely.

In retrospect of the typing experience with finger disability, I deeply appreciate the autofill function of the URL of the browser, which not just eliminated the great effort I had to make to navigate to the intended webpage, but also boosted my confidence of completing the task. The autofill function of the username and password could have done the same thing for me if I was the owner of the computer and have typed the correct credentials before, but unfortunately it was not my computer and the password was very long with mixed upper and lower case letters due to safety requirements. The username + password authentication method has been prevalent for such a long period, and it's like you have to key in the PIN for your debit card every time you buy something. Why can't we design a robust signature-based way to authenticate someone online, just like using a credit card? Alternatively, we can use biometric authentication method, such as finger print/voice/iris recognition. These technologies already exist for some time, but the evangelism of using them more in the IT industry is still in great demand.

The most important insight I gained through this disability simulation would be: don't underestimate the ability of people with disability to adapt, however, also don't overestimate the ability of these people to do some tasks which are physically over challenging for them. If we can provide alternative ways to help them accomplish these challenging tasks utilizing their ability to adapt, it would be just like writing with a pen, or typing with the autofill function of the browser to me when I was doing the finger disability simulation: accessible and encouraging.