# **NAVID PANAH ETEC 511**

#### Usability

The concept of usability from the lens of Issa and Isaias (2015) one where a system must be accessible, easy to learn, and enjoyable for the user. This can be rooted in the basic Human Computer Interaction (HCI) that is required for a successful system, specifically "communication requires agreement" (p.23). The key component for a system to have an effective usability is to have a common language that can be interacted with and interpreted to provide the expected outcome. The system should be designed with the user taking an active role with the system designer to create a common language, then the importance of the system's flexibility and efficiency will be considered to configure the system to the needs of the user.

### **Educational Usability**

Usability currently considers a system's ability to provide an efficient and interactive experience for the user. However, the users in an educational setting cannot be as generalized as some some usability system models expect. Instead, learners have differentiated learning needs and educational usability should be emphasized to include accessibility for all learners to be within the parameters of each learner's goals. Furthermore, educators and learners' input should be valued in the design of usability and their learning intentions with the system. Educational usability needs to be grounded in providing an accessible and differentiated learning opportunity and resource that easily can be used to enrich a classroom setting.

# **Configuring the User**

Woolgar (1990) identified several examples of systems configuring their users to their requirements rather than increasing their usability for the user. One of the most astounding moments was when the designers and engineers describe their perspective in that "there was no point in asking users what they wanted because they themselves didn't know." (Woolgar, 1990, p. 74). his viewpoint undermines the purpose of the user and the effectiveness of the system to configure to the user's need. If the designers of the system and engineers do not understand the value of the user and their intended purpose with their systems, then how could they configure their systems to include the key seven principles of usability as discussed by Issa and Isaias (2015)? Secondly, when the users were given access to the new DNS system, the testers were intended to be observers to understand how users would interact with their system and the usability or weaknesses of their design. However frequent intervention occurred whenever a user faced a problem in the system, these interventions prevented the user from having the flexibility and learnability to approach their system and find paths to success. Instead a set path of functions and commands were expected by the tester and by extension the system for the user to reach their product. Rather than configuring the system to the users need the system set within its boundaries was attempting to configure the user to fit its own parameters.

# Configure the System or the User?

Issa and Isaias (2015) take the stance that HCI and systems are built around being easily accessible, efficient, and user centric. By observing users interact with their systems they can improve and streamline efficiency to better suit the needs of their learners and to ease the communication between user and system. In turn the system itself is changed to better fit the data observed from the users and to improve usability. This contrasts the viewpoint of Woolgar (1990) where the system studied in his research, the DNS, was instead created by engineers and the users were intended to configure to the limits and boundaries of the system itself. This was done by the users being gently guided through their objectives resulting in them being hemmed in and constraining their ability for flexibility within the system. A key difference is that Issa and Isaias (2015) discuss satisfaction from the user while using their system, and their motivation is clearly laid out in "usability = simplicity = user satisfaction = increased profit" (p. 30). Satisfaction appears to not be a part of the scope of the DNS system, instead the conclusion reached by Woolgar (1990) "users can't help the way they behave; they just need to be educated to understand what we are trying to achieve here" (pp. 89-90). From these two studies we can see that there needs to be a balance between usability for the user while engineers and designers can still challenge the limits of user understanding to innovate and provide increased robustness for the system in today's advancing modern world.

#### References:

Issa, T., & Isaias, P. (2015) <u>Usability and human computer interaction (HCI).</u> In Sustainable Design (pp. 19-35). Springer.

Woolgar, S. (1990). <u>Configuring the user: The case of usability trials</u>. *The Sociological Review*, 38(1, Suppl.), S58-S99.