

WEEK 1

IS 573 – 2013/2

Compare&Contrast Shneiderman's views on HCI with Landaurer's

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Figure 1 - Landaurer's Skeptical Approach (based on my own critics)³

In 1995, Landaurer approached the question of productivity of computers by taking the counter arguments into consideration. According to Landaurer, some of the arguments are related to the “undeniable fact of computer power”, “undeniable fact of computer popularity” and “undeniable personal enthusiasm”^[1](p. 83). He observed the data results in the business and claimed that the productivity of the manufacturers back in days wasn’t obviously changed positively after introducing IT to the system in spite of their hardware capacity. Likewise, when he looked at the sales and popularity of computers, he could not see the evidence of increase in productivity. As indicated in the testimonials of his own experiences or leaders from the industry, there is a positive “qualitative” (but instead of “quantitative”) gain with computers in their businesses. After all these counter arguments from the industry and experiences, he questioned if there is a comparable output (or product) of the positive effect of computers as a “measurement” (as in the supermarket example). At least, he accepted that it was too early to see the improvements with computer help in the sector as information technologies were newly introduced (like to see the effects of steam engine after hundred years). He thought that especially the adaptation of the information technologies for big companies is hard while large processes were going on. On the other hand, he also thought that it can be a coincidence that some other factors decrease the productivity while the computers increase

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Figure 2- Shneiderman's Interrogative-Algorithmic Approach (based on my own critics)⁴

In 1998, Shneiderman examined the state of user interface design while the computer usages were expanding. According to my opinion, in contrast to Landaurer, he didn’t question and search for the proof of productivity in the market quantitatively. In fact, he admitted somehow the fact that the

computer systems enhanced the quality of life but the problem was the human adaptation side. He thought that the rapid changes in the computer technologies could cause frustration or failure problems among the users while interacting with them. He claimed that the goals of system engineering should be “thoughtful planning”, “sensitivity to user needs”, and “diligent testing” to keep the user “in flow” to concentrate on his work rather than stuck with the computer ². According to him, functionality, reliability-availability-security-data integrity, standardization-integration-consistency-portability and cost are the features to be considered by the developers and designers.” Moreover, he thought that the user-interfaces of computers should be with time saving, speed, low error rate, high retention time and satisfaction. In spite of Landaurer interrogative approach for finding quantitative measurements, Shneiderman tried to find the motivations for human factors and concerns in using the computers in life-critical systems, industrial-commercial uses, office-home-entertainment applications and creative-cooperative systems. He stated that the effect of physical, cognitive, personal, cultural differences should be taken into consideration while designing computer interfaces. To test the designs he suggested some pilot studies and usability tests. In my opinion, Shneiderman’s approach is more systematical (cause and effect like) and algorithmic for the problems in the aim of improving or solving problems related to productivity and effectiveness of computers².

References:

[¹] Landaurer, T. , *The Trouble With Computers: Usefulness, Usability and Productivity*, The MIT Press, 1995.

[²] Shneiderman, B. (1998). *Designing The User Interface: Strategies for Effective Human-Computer Interaction*. (3rd ed.). Menlo Park, CA: Addison Wesley.

[³] <http://thepatriotperspective.files.wordpress.com/2011/05/sherlock-holmes-coloring-page-gif.jpg?w=614>

[⁴] http://www.uiaccess.com/accessucd/personas_eg.html