Writeup for the talks of Lee Lisle 11/12
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Lee Lisle is a 5th year PhD Candidate in the Department of Computer Science at Virginia Tech. His research focuses on Human-Centered Computing (HCI). How people make sense of their experiences in the world is the topic on which he is doing his research.

In the seminar, he talked about the process of sensemaking. Pirolli and Card Model of sensemaking where 2 main loops (Foraging and Sensemaking) exist. He depicted that understanding relationships between data artifacts is difficult. He then talked about visual analytics and datasets. He classified the datasets into i) Abstract data to gain insights, ii) Quantitative datasets and iii) Non-Quantitative datasets. He mentioned Immersive Analytics which includes the Evolution of visual analytics, HCI, & Augmented/Virtual Realities, Leverage natural interaction and locomotion, Consumer Devices make it more accessible and Seen almost exclusively with quantitative datasets. Room-scale immersive environment, Multimedia Document Interactions, Reframe evidence to better understand relationships are the immersive space to think he mentioned in the seminar. The benefits of IST are multimedia document sensemaking, leverages embodied cognition. Spatial Memory, Offloading cognition onto the environment, Situated Cognition, and Environmental relationship are part of leveraging embodied cognition.

During the seminar talk, Mr. Lisle raised some research questions. Design the 1st research question, how analytic tools for 3D immersive can be designed. 3D Immersive Space is the second research question, how 3D immersive space affects users performing sensemaking tasks with non-quantitative datasets. Comparison is the third research question, what are the relative benefits for 3D immersive space as compared to large scale, high-resolution displays and traditional methods of performing sensemaking tasks. Mr. Lisle pointed out viewing multimedia files, searching documents, organizing documents, extracting direct quotes, and supporting offloading cognition are the identified needs of the users. Notes, highlights, labels are supporting tasks for offloading cognition. He provided some visualization to make the concept more understandable. Later Mr. Lisle described the evolution of text input. Wizard of Oz implementation, Keyboard implementation, and AR Portal Design is the evolution steps of text input. After that, he talked about augmented reality implementation. It is necessary because of real-world interactions, seamless context switches, and the ability to use additional tools.

In the seminar, Mr. Lisle mentioned the data collection procedures. Log files, final layouts, post-experiment in VR interview, post-experiment interview. After that, he talked about different kinds of layouts like Semicircular layout, environmental layout, planar layout, etc. He provided a nice visualization for the explanation of the movement of data. Mr. Lisle also indicated the future directions for IST. i) Adding semantic interaction, ii) Adding natural language processing, collaborative IST, and IST as museum exhibition or presentation are the future directions of IST.

The seminar conducted by Mr. Lisle was a good one. He used some beautiful and eye-catching images to make the presentation more interesting. He clearly stated the human-centered based aspect of his research and what can be future directions. This seminar was a very effective one to enrich my knowledge.