ADVisE

Adaptive **D**ata **Vis**ualizations Fram**E**work

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MEETING MINUTES
Technical Meeting

University of Cyprus
Department of Computer Science

Meeting Number

5

Date	28/09/2017
Time	14:00- 16:00
Location	Dept. of Psychology, University of Cyprus, ΟΕΔ 01 Room #B216, Ground Floor
Participating Partners On-site	▪ Dr. Panagiotis Germanakos **(UCY)** ▪ Dr. George Spanoudis **(UCY)**
Participating Partners Remote	-

DESCRIPTION

In this meeting we had the chance to discuss extensively the human factors to be used in the design and development of the dynamic part of the human-centred user model in T3.3. We qualified a selection of cognitive characteristics that could be used based on prior experience and their application in the data visualizations area. Main concern at this stage was to formulate a more concrete idea around the impact and the effectiveness of related cognitive abilities when users engage on business tasks that entail data exploration over a visually enriched interactive content. The broader categories were concerning cognitive styles and the working memory capacity as well as mechanisms that influence visuo-spatial abilities.

The second part of the meeting was focused on the end-users' expertise factor. Given that there is not, to our knowledge, any standardized tool in the market that could measure the skill levels of business professionals, we emphasized on related theories, characteristics and methods that could help us in this regards to create a questionnaire from scratch. The potential items and questions that would constitute the backbone of such a questionnaire/ tool would have to embrace main theoretical perspectives around various skills acquisition in the workplace and be aligned with a dynamic business environment as is the one at hand. Furthermore, it should align with the main business roles under investigation like managers, data analysts and decision makers, that share different backgrounds but need to undertake the same tasks (in different depths) towards extracting meaning and patterns out of data that would help them to respond on critical daily questions and requests.

The involved risk following this direction is relatively high since such an action would require enough time, many iterations and an extensive sample of users. But, the return on this investment would be significant, since apart from the actual innovation of this potential, we would be able to more accurately extract the various expertise levels of users (on acquiring specific skills, i.e. goal-directed exploration and analysis of data while interacting with visualizations). The outcome would feed at a later stage the generation of informed mapping rules and a qualitative adaptation engine in WP4.