PROJECTNOTA

Naam project: **LAAR (Learning Analytics in Augmented Reality)**

Omschrijving:

Augmented Reality (AR) has the potential to support effective learning in informal and non-formal learning environments and not only in school or higher education (see Sommerauer & Müller, 2014) but also in professional education (i.e. ERASMUS+ Project „EI-integration“). Especially in the Event Industry, trainings for safety and security are needed to protect workers at their workplace. One central issue hereby is, which elements must be taken in consideration (i.e. teaching and learning elements, design elements, etc.) when developing effective learning applications. Moreover, how can such applications support responsible persons at the workplace so that they can ensure, that each employee has been trained in safety & security and has understood the key elements of the training and has the ability to behave according the instructions.

Learning Analytics (LA) provides various tools and concepts to support learning and especially people who are involved in learning processes (trainer, trainee, evaluator). The project aims to create a framework on the basis of LA insights, for implementing elements in AR learning applications which supports learners and trainers in their teaching and learning processes towards a higher efficiency and efficacy. At this point, elements from LA like functions and integration of analytical elements shall be implemented to receive feedback about handling and ease of use from the apps, as well as measures for learning performance. In various iterations, a series of pilot applications shall be developed and tested within the Event Industry and in specific training areas (i.e. Hilversum test as provided ERASMUS+ project “ETTE”). From the results and insights, key questions should be answered like how the data required for "big-data analysis methods" can be processed in a small work environment, or which methods can be developed to derive knowledge from established, large learning environments.

A concrete, desirable result would be to provide recommendations about how the transparency of learning services in the understanding of learning outcomes can be depicted with the aid of LA and AR in order to dismiss the responsibility for employers not only to offer the possibility to participate in safety briefings (consumption) but also to ensure that employees have understood and will behave adequately.

The consortium of leading european scientist coming from the areas LA and AR aims to establish a strategical partnership in which the conceptionalisation of the topics LA and AR should be used to apply in the field of professional education, especially in informal learning environments and directly at the workplaces. Since one result should cover also a contribution to the research community, the project aims to develop new opportunities at workplaces and also for LA and AR to provide an added value and give answer to current questions from professional education. Scientific key issues in this context are i.e. how big data analytics can be applied in areas where less data is avaliable, or which parameters contribute to raise efficiency and efficacy of AR learning applications

The consortium exists of the partnerorganisations GPOCS (Koordination in LI), IT University Copenhagen (DK), Oxford Brookes University (GB), WAAG society (NL) and STEPP (BE) aims to establish a strategic partnership in which the indicated topics and aspects should be elaborated. Within a first analysis, existing research results and their leading questions need to be reviewed. In a second step, a first functional prototyp of AR learning application should be developed for analysis and evaluation purposes, which then will be - according the design science approach - applied in various iterations within field experiments at workplaces. Finally, the goal of the project is to support a full session training (i.e. Hilversum test, project ETTE) on the basis of AR learning applications and the use of LA tools and measures.

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Financiering:	Erasmus+ project
Link:	