

Using information from the World Wide Web for the study of risk and safety – a research note

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Like many other Eastern-European countries Estonia faces rapid technological and organisational transformations. This becomes manifest in, for example, innovations in industry, transportation systems, business and administration, and in application of information and communication technology (ICT) in practical all areas of society.

In order to cope with these transformations, people have to be educated and instructed in time to be able to operate successfully. The ‘Human Interface’, i.e. the processes that determine the interaction between the human operator(s) on the one, and machines, tools, equipment, etc., on the other hand, should be carefully studied in order to understand what the optimal design between these two should look like. Insufficient design in existing situations could be, if possible at all, improved or cured to a better adaptation. However, this is mostly an expensive undertaking. Very often it is even more difficult to realise what tomorrow will bring, so that problems in the human-machine interface can be prevented in time. A wrongly designed interface may lead to unacceptable risks and/or unsafe and health-violating situations.

Engineering students from different areas, like construction, power plant engineering, logistics, etc., have to become aware of the problems of risk and safety, and of human health in working conditions and environmental situations. Tallinn Technical University includes in the teaching curriculum a risk and safety course in which human factors/ergonomics problems are studied, particularly with regard to safe and efficient work situations and processes, including the prevention of unhealthy environments. The implications, however, have to be in line with Baltic and EU legislation and directives that could set off boundaries to what at first seems to be preferable.

In becoming well-informed by the above mentioned aspects and conditions, students in engineering in this regard have to be trained in the following areas:

- Theoretical and practical principles of human factors/ergonomics, including participation in laboratory exercises;
- The familiarisation with the use of risk assessment methods for a variety of tasks and work situations;

In D. de Waard, K.A. Brookhuis, S.M. Sommer, and W.B. Verwey (2003), *Human Factors in the Age of Virtual Reality* (pp. 325 - 326). Maastricht, the Netherlands: Shaker Publishing.