

Operability Evaluation



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The quality and value of a new computer system is often measured by how easy it is to use. Operability evaluation helps project teams understand the extent to which developing systems are effective, efficient, and safe to use.

We are a small and highly experienced Human Factors consultancy based in Bristol, UK. Our specialism is the human-centred analysis and validation of mission-critical Human-Machine Interfaces (HMIs).

We have conducted over 100 operability assessment sessions, involving different evaluation methods, different user groups, and software of different levels of maturity.

Typically assessments will involve end-users interacting with some representation of the software and/or hardware associated with the operator console. The fidelity of the product depends on the design stage and the purpose of the evaluation.

Our approach starts with defining the purpose and desired outcomes of the operability evaluation. This is often either to answer a design question, benchmark a product, or to generate evidence to support a claim on the operability of the system.

We have many years experience in organising and conducting assessments, and working with stakeholders to understand and act on the outcomes of assessments.

We can also advise on sensible and appropriate approaches to dealing with issues of human error through Operability Evaluation and the integration of evaluation findings into Safety Cases.

Our experience encompasses the full range of operability evaluation activities:

Operability Trials Planning. We have experience in working with project teams to produce Operability Evaluation Plans that balance the needs of the evaluation with the practicalities of product maturity and end-user availability. We can assist with determining the appropriate objective, subjective, and secondary measures that will address the trial purpose. We are experienced in producing briefing materials for the range of stakeholders that may be interested in the testing sessions. This ensures that stakeholders have an accurate understanding of the objectives and scope of the operability testing.

Trials Facilitation. We have broad experience of operability testing facilitation in a number of different situations including: products for managerial or front-line staff, single or multi-user products, remote testing, expert or occasional use, and software of varying levels of maturity and stability. Should it be necessary, our access to a range of cameras and logging software assists with the trials process. We use planning, communication, and 'dry-run' activities to ensure that trials will run smoothly when end-users arrive.

Reporting. Our reporting will be matched to the needs of the project. Generally we prefer to conduct a feedback workshop with the project team as soon as practical following the end of the evaluation sessions. This allows the project team to discuss the early findings and get a sense of the main themes emerging from the evaluation. Following this we will produce a formal full or summary report. We are also able to provide video summaries of the key points of the testing, should this be necessary.

Management of Findings. While this step is often missed from the process it is critical to obtaining the full value of the investment in the operability testing. We are able to provide practical advice and guidance to a project team during the implementation of any recommendations.

Previous operability evaluation clients have included: Transport for London, Costain, Atkins, and Invensys.

To learn more please contact Chris Lowe on +44 117 230 2090 or chris@liv-systems.com.

Capability Statement