The human element is the principle cause of incidents and accidents in all technology industries; hence it is evident that an understanding of the interaction between humans and technology is crucial to the effective management of risk. Despite this, no tested model that explicitly and quantitatively includes the human element in risk prediction is currently available.

*Managing Risk: the Human Element* combines descriptive and explanatory text with theoretical and mathematical analysis, offering important new concepts that can be used to improve the management of risk, trend analysis and prediction, and hence affect the accident rate in technological industries. It uses examples of major accidents to identify common causal factors, or “echoes”, and argues that the use of specific experience parameters for each particular industry is vital to achieving a minimum error rate as defined by mathematical prediction. New ideas for the perception, calculation and prediction of risk are introduced, and safety management is covered in depth, including for rare events and “unknown” outcomes.

- Discusses applications to multiple industries including nuclear, aviation, medical, shipping, chemical, industrial, railway, offshore oil and gas;
- Shows consistency between learning for large systems and technologies with the psychological models of learning from error correction at the personal level;
- Offers the expertise of key leading industry figures involved in safety work in the civil aviation and nuclear engineering industries;
- Incorporates numerous fascinating case studies of key technological accidents.
Managing Risk: the Human Element is an essential read for professional safety experts, human reliability experts and engineers in all technological industries, as well as risk analysts, corporate managers and statistical analysts. It is also of interest to professors, researchers and postgraduate students of reliability and safety engineering, and to experts in human performance.

“...congratulations on what appears to be, at a high level of review, a significant contribution to the literature…I have found much to be admired in (your) research” Mr. Joseph Fragola – Vice President of Valador Inc.

“The book is not only technically informative, but also attractive to all concerned readers and easy to be comprehended at various level of educational background. It is truly an excellent book ever written for the safety risk managers and analysis professionals in the engineering community, especially in the high reliability organizations…” Dr Feng Hsu, Head of Risk Assessment and Management, NASA Goddard Space Flight Center

“I admire your courage in confronting your theoretical ideas with such diverse, ecologically valid data, and your success in capturing a major trend in them….I should add that I find all this quite inspiring . …The idea that you need to find the right measure of accumulated experience and not just routinely used calendar time makes so much sense that it comes as a shock to realize that this is a new idea”, Professor Stellan Ohlsson, Professor of Psychology, University of Illinois at Chicago

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