Better Decision Making in Complex Dynamic Tasks-A Book Review

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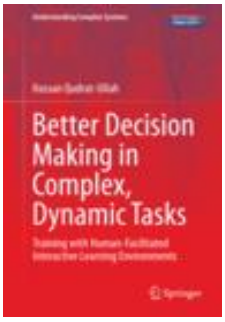
Abstract – **The objective of this work is the book "Better Decision Making in Complex Dynamic Tasks (Training with Human-Facilitated Interactive Learning Environments)", 978-3-319-07985-1, from Springer Series "Understanding Complex Systems" review:**

H. Qudrat-Ullah, Editor of this book points its three main objectifs as:



1. Providing a comprehensive study of decision making and learning with human facilitated ILEs.

2. Introducing decision making in dynamic tasks.

3. Explaining the methods and obstacles of training with human facilitated simulation-based learning environments.

It is composed of four parts:

- **Part I serves as an introduction to the importance and complexity of decision making in dynamic tasks.**
- **Part II provides background material, drawing upon relevant literature, for the development of an integrated process model on the effectiveness of human facilitated ILEs in improving decision making in dynamic tasks.**
- **Part III focuses on the design, development, and application of FishBankILE in laboratory experiments to gather empirical evidence for the validity of the process model.**
- **Part IV presents a comprehensive analysis of the gathered data to illustrate the lessons to be learned.**

The keywords and the related subjects presented below, also supplied by the Editor, complete the understanding about the subjects dealt with in this book and also on the research methodologies used. The whole book is written in very correct and accessible English. It is scientifically rigorous and exigent. The contributors are leading experts in this field, with high reputation. According to the Editor, this book will be useful for managers and practitioners, researchers, and students of dynamic decision making.

Keywords - *Business Dynamics; Complex Decision Making; Complex Dynamic Task; Decision Making Dynamic Task; Decision Making and Learning; How to Develop an ILE; Human Facilitated Interactive Learning Environment; ILE - Interactive Learning Environment.*

Related subjects - Complexity; HCI; Learning & Instruction; Operations Research & Decision Theory.

1. The review

The Albert Einstein words, cited by this book Editor:

> "I never teach my pupils, I only attempt to provide the conditions in which they can learn"

are paradigmatic in what concerns a good teacher work. In fact to learn is a personal, and original, achievement. Who does not learn for itself does not learn effectively and never will be autonomous in action. Who is not able to learn for itself, always has to be driven for any other, more or less closely and will never be independent.

So the teacher work is to supply the adequate learning environment for the pupils.

Following this idea, in this book it is intended to give ways of training with Human-Facilitated Interactive Learning Environments-ILEs, in order to have better decision making in complex dynamic tasks. In particular in ILEs design, development and application.

The complex dynamic tasks to be considered in the scope of this book are innumerous and diverse as Human and Natural Catastrophes, Medicine, Epidemics, Fisheries, Finance, Economy, War, Traffic…

So the word Complex appears in the sense that a Complex Problem is a one about which very few or even nothing is known. It is also referred in "Complex Decision Making" that is in a higher level than the "Decision Theory" usually considered in the "Operations Research" scope.

The word Dynamic is connected with something that changes very rapidly, demanding a permanent learning.

Part I and Part II are more theoretic and conceptual supplying background on this theme. Part III and Part IV are driven to the applications: design, development, data analysis.

Part III is entirely devoted to an application in Fisheries: the design, development, and application of FishBankILE in laboratory experiments, performed and described with a very great detail. Through this application, empirical data are collected for the validity of the process model. It is a very clever and pedagogic way to show how to construct and validate ILEs.

Finally note that the literature on this subject is not particularly abundant and so this book gives an important contribution to pad this gap.

2. Overall review

This is an outstanding book, scientifically rigorous, fundamental and valuable in "Training with Human-Facilitated Interactive Learning Environments", simultaneously conceptual and operative. Written by highly reputed contributors it is an essential reading for managers and practitioners, researchers, and students of dynamic decision making.

Reference

[1] H. Qudrat-Ullah (Ed.). *Better Decision Making in Complex Dynamic Tasks (Training with Human-Facilitated Interactive Learning Environments)*. Understanding Complex Systems, XIV, 2015, XX, 252 p., 69 illus., 59 illus. in color, ISBN: 978-3-319-07985-1. DOI: 10. 1007/978-3-319-07986-8_1.