

1. Record Nr.	UNINA9910459103603321
Titolo	Macrocognition Metrics and Scenarios : Design and Evaluation for Real-World Teams // edited by Janet E. Miller and Emily S. Patterson
Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press, , [2018] ©2010
ISBN	1-315-59317-3 1-317-10281-9 1-282-61487-8 9786612614873 1-4094-0687-3
Edizione	[First edition.]
Descrizione fisica	1 online resource (340 p.)
Disciplina	658.4/036072
Soggetti	Group decision making - Evaluation Cognition - Measurement Teams in the workplace - Evaluation Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Contents; List of Figures; List of Tables; Acknowledgments; List of Contributors; Preface; Part I Theoretical Foundations; 1 Theory, Concepts, Measures but Policies, Metrics; 2 Some Challenges for Macrocognitive Measurement; 3 Measuring Macrocognition in Teams: Some Insights for Navigating the Complexities; Part II Macrocognition Measures for Real-world Teams; 4 Macrocognitive Measures for Evaluating Cognitive Work; 5 Measuring Attributes of Rigor in Information Analysis; 6 Assessing Expertise When Performance Exceeds Perfection 7 Demand Calibration in Multitask Environments: Interactions of Micro and Macrocognition 8 Assessment of Intent in Macrocognitive Systems; 9 Survey of Healthcare Teamwork Rating Tools: Reliability, Validity, Ease of Use, and Diagnostic Efficacy; 10 Measurement Approaches for Transfers of Work During Handoffs; 11 The Pragmatics of Communication- based Methods for Measuring Macrocognition; 12

From Data, to Information, to Knowledge: Measuring Knowledge Building in the Context of Collaborative Cognition; Part III Scenario-based Evaluation Approaches

13 Forging New Evaluation Paradigms: Beyond Statistical Generalization
14 Facets of Complexity in Situated Work; 15 Evaluating the Resilience of a Human-Computer Decision-making Team: A Methodology for Decision-Centered Testing; 16 Synthetic Task Environments: Measuring Macrocognition; 17 System Evaluation Using the Cognitive Performance Indicators; Index

Sommario/riassunto

Macrocognition Metrics and Scenarios: Design and Evaluation for Real-World Teams translates advances by scientific leaders in the relatively new area of macrocognition into a format that will support immediate use by members of the software testing and evaluation community for large-scale systems as well as trainers of real-world teams.

Macrocognition is defined as how activity in real-world teams is adapted to the complex demands of a setting with high consequences for failure. The primary distinction between macrocognition and prior research is that the primary unit for measurement is a real-world team coordinating their activity, rather than individuals processing information, the predominant model for cognition for decades. This book provides an overview of the theoretical foundations of macrocognition, describes a set of exciting new macrocognitive metrics, and provides guidance on using the metrics in the context of different approaches to evaluation and measurement of real-world teams.
