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Nota di contenuto	Quantitative Intelligence Analysis; Table of Contents; List of Figures; List of Tables; Foreword; Preface; Chapter 1 The Intelligence Analyst and Synthesis; Models in Intelligence and Policy; The Tools of Synthesis; The Organization of this Book; Chapter 2 Modeling in Intelligence; Using Models to Understand Systems; Using Models to Enable Analytic Collaboration; Using Models to Explain Analytic Judgment; Challenges to the Use of Models; Determinism, Causality, and Prediction; Case Study: Understanding Terrorist Organization; Summary; Chapter 3 Mental Models in Intelligence Analysis Models of ThinkingMental Models as Artifacts of Thinking; Intelligence Analysts and Their Mental Models; Chapter 4 Translating Mental Models to Explicit Sharable Models; Framing and Representing an Intelligence Problem; Tacit-Explicit Capture and Interaction; The Tacit-Explicit Translation Process; Understanding Mental Models and Cognitive Processes to Enhance Analytic Rigor; Chapter 5 Explicit Models in Structured and Quantitative Analysis; Structured and Quantitative Analysis; First, a Caution; Explicit Models in the Analytic Process; The Explicit Modeling Process Case Study: An Example of the Explicit Modeling ProcessSummary; Chapter 6 Explicit Models of Analytic Thinking; Expressing Analytic Thought in Explicit Models; Modeling the Concepts that Precede

Analysis; Modeling in Counterfactual Reasoning; Modeling in Convergent Reasoning from Evidence to Inference; Modeling Comparative Reasoning about Alternative Hypotheses; Integrating Target and Analysis Models; Chapter 7 Explicit Models of the Targets of Analysis; Models of Data and Models of Theory; Models and Model Prediction in Intelligence; Abstracting Real Target Systems; The Validity of Models

Descriptive Models in Analysis Exploratory and Predictive Simulations in Analysis; Case Study: Simulating a Physical System; Simulating Human Systems; Case Study: Civilian Population Responses to Sanctions; Hybrid Modeling Socio-Technical Systems; Case Study: Model-based support to Planning: Joint Intelligence Preparation of the Operational Environment (JIPOE); Methodology and Technology Challenges; Chapter 8 Analytic Wargaming in Intelligence; Principles of Gaming and Categories of Games; Analytic Games in Intelligence; The Game Process Incorporating Computational Models and Simulations in Analytic Games Case Study: Conducting Analytic Games to Support Intelligence; CRYSTALLINE; VERTIGO; Analytic Games to Enhance Work-Group Effectiveness; Chapter 9 Model-Based Support to Collection and Operations; Model-Based Approaches to ISR Collection Support for Physical Target Systems; Model-Based Approaches to Support Activity-Based Intelligence (ABI) for Human Target Systems; Case Study: Model-Based Collection Support; Hypothesis Testing Analytic Method; The Future Role of Models and Simulations in Joint Intelligence Operations Chapter 10 Implementing the Discipline of Explicit Quantitative Modeling and Analytic Gaming

Sommario/riassunto

Quantitative Intelligence Analysis describes the model-based method of intelligence analysis that represents the analyst's mental models of a subject, as well as the analyst's reasoning process exposing what the analyst believes about the subject, and how they arrived at those beliefs and converged on analytic judgments. It includes: Specific methods of explicitly representing the analyst's mental models as computational models; Dynamic simulations and interactive analytic games; The structure of an analyst's mental model and the theoretical basis for capturing and representing the tacit knowledge
