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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 AnalysisExploratory 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 GamesCase 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 knowledg