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Nota di contenuto	Preliminaries -- Relevant Technologies -- Descriptive and Prescriptive Learning Theories -- PAIGOS -- General Principles -- Course Generation in Practice: Formalized Scenarios -- Implementation and Integration -- Evaluation -- Conclusions -- Related Work -- Future Work and Acknowledgments.
Sommario/riassunto	Automatic course generation is a very important area of research with numerous practical applications in e-learning. It has been studied since the 1980s within the fields of intelligent tutoring, AI and education, adaptive hypermedia and web-based educational systems. Many approaches have been proposed, but hardly any have resulted in generic and practically applied systems. A number of problems have remained unresolved. These problems are addressed by this work. This book focuses on course generation based on Hierarchical Task Network planning (HTN planning). This course generation framework enables the formalization and application of complex and realistic pedagogical knowledge. The volume describes basic techniques for course generation, which are used to formalize seven different types of courses (for instance, introducing the learner to previously unknown concepts and supporting the learner during rehearsal) and several elementary learning goals (e.g., selecting an appropriate example or exercise). This framework has been implemented and evaluated with

good results in several domains, with users from different countries and universities, in the context of an EU project. Course generation based on HTN planning is implemented in PAIGOS and has been evaluated by technical, formative and summative evaluations.