Record Nr. UNINA9910483879603321 Educational robotics in the context of the maker movement / / editors, **Titolo** Michele Moro, Dimitris Alimisis, Luca locchi Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-18141-3 Edizione [1st edition 2020.] Descrizione fisica 1 online resource (223 pages): illustrations Collana Advances in Intelligent Systems and Computing, , 2194-5357;; 946 Disciplina 629.892 Soggetti Robotics Maker movement Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Part 1: Educational Robotics and the Maker Movement -- Designing a Makerspace for Children - Let's Do It -- Enactive Robot Assisted Didactics (ERAD): The Role of the Maker Movement -- Introducing the making culture in teacher education; the eCraft2Learn project -- Part 2: Pedagogy behind Educational Robotics -- Trans-constructionist prototyping with a rare vintage -- Creativity Thinking Skills Promoted through Educational Robotics -- From Digital Fabrication to Meaningful Creations: Pedagogical Perspectives -- Badges Are Back! - Fostering Self-Assessment during Personalised Learning in Making and Digital Fabrication -- Part 3: Programming, Games and Social Robots --Exploring Escape Games as a Teaching Tool in Educational Robotics. This book gathers papers presented at the International Conference Sommario/riassunto "Educational Robotics in the Maker Era – EDUROBOTICS 2018", held in Rome, Italy, on October 11, 2018. The respective chapters explore the connection between the Maker Movement on the one hand, and Educational Robotics, which mainly revolves around the constructivist and constructionist pedagogy, on the other. They cover a broad range of topics relevant for teacher education and for designing activities for children and youth, with an emphasis on using modern low-cost technologies (including block-based programming environments, Do-

It-Yourself electronics, 3D printed artifacts, intelligent distributed systems, IoT technology and gamification) in formal and informal

education settings. The twenty contributions collected here will introduce researchers and practitioners to the latest advances in educational robotics, with a focus on science, technology, engineering, arts and mathematics (STEAM) education. Teachers and educators at all levels will find valuable insights and inspirations into how educational robotics can promote technological interest and 21st century skills – e. g. creativity, critical thinking, teamwork, and problem-solving – with a special emphasis on new making technologies.