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Autore	Bergner Nadine, Prof. Dr.
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Nota di contenuto	About the Authors Preface Foreword (Ilan Chabay) Introduction ("Haus der kleinen Forscher" Foundation) 1 Overview of the "Haus der kleinen Forscher" Foundation 2 Relevance of Early Computer Science Education 3 Professional Basis for the Subject Area of "Computer Science" Summary of Key Findings ("Haus der kleinen Forscher" Foundation) A Goal Dimensions of Computer Science Education at the Elementary and Primary Level (Nadine Bergner, Hilde Köster, Johannes Magenheim, Kathrin Müller, Ralf Romeike, Ulrik Schroeder, Carsten Schulte) 1 Potential of Computer Science Education 1.1 What is Computer Science? 1.2 Computer Science as a Science 1.3 Construction in Computer Science 1.4 Similarities and Differences in Computer Science in Comparison 1.5 Computer Science and Computer Science Education 1.6 The Relationship of Computer Science Education, Media Education & Digital Education 1.7 Conclusion: Computer Science Education for all 2

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Sommario/riassunto

Das Buch beschreibt Ziele und Erfolgskriterien der frühen informatischen Bildung im Vorschul- und Grundschulalter. Zwei Expertisen benennen pädagogische Inhaltsdimensionen der informatischen Bildung und geben Empfehlungen für die Weiterentwicklung der Angebote der Stiftung "Haus der kleinen Forscher". Beschrieben wird auch die Umsetzung dieser fachlichen Empfehlungen in den Programmen der Stiftung "Haus der kleinen Forscher". "Scientific Studies on the Work of the 'Haus der kleinen Forscher' Foundation" is a regularly published series of scientific reports authored by distinguished experts from the field of early education. This series serves to pursue professional dialogue between the Foundation, academia and practice, with the aim of lending sound support to all child-care centres, after-school care centres and primary schools in Germany in their educational mission. This ninth volume of

the series, with a foreword by Ilan Chabay, deals with the goals and requirements of computer science education in the elementary and primary sector. In their expert report, Nadine Bergner, Hilde Köster, Johannes Magenheim, Kathrin Müller, Ralf Romeike, Ulrik Schroeder and Carsten Schulte specify the pedagogical and content-related goal dimensions of computer science education at child-care centres and primary schools. In addition to establishing a theoretical basis for various goal dimensions, the authors discuss the success criteria for effective and efficient early computer science education in practice. They also provide recommendations for the further development of the Foundation's offerings and scientific accompaniment of the work of the Foundation in the field of computer science. In their expert recommendation, Nadine Bergner and Kathrin Müller describe a selection of informatics systems for children at child-care centres and primary schools and offer suggestions for particularly suitable systems and their use in elementary and primary education based on professional criteria. The final chapter of the volume describes the implementation of these professional recommendations in the programmes of the "Haus der kleinen Forscher" Foundation – with and without computers.
