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Nota di contenuto	Keyword Spotting out of Continuous Speech -- Introduction -- Problem Formulation: KWS in Large Speech Databases -- Target Applications of Keyword Spotting -- Keyword Spotting Methods -- LVCSR-Based KWS -- Acoustic KWS -- Phonetic Search KWS -- Discussion: Why Phonetic Search? -- Response Time -- KWS Performance -- Keyword Flexibility -- Phonetic Search -- The Search Mechanism -- Using Phonetic Search for KWS -- Computational Complexity Analysis -- Search Space Complexity Reduction -- Overview -- Complexity Reduction in Phonetic Search -- Anchor-based Phonetic Search -- Evaluating Phonetic Search KWS -- Performance Metrics -- Evaluation Process -- Evaluation Databases -- Evaluation Results -- Exhaustive Search. - Textual Benchmark -- KWS on Speech -- Anchor-based Search -- Textual Benchmark -- Reduced Complexity KWS on Speech -- Multiple Thresholds -- Lessons Learned from the Evaluation -- Summary -- Glossary of Acronyms -- References.
Sommario/riassunto	“Phonetic Search Methods for Large Databases” focuses on Keyword Spotting (KWS) within large speech databases. The brief will begin by outlining the challenges associated with Keyword Spotting within large speech databases using dynamic keyword vocabularies. It will then

continue by highlighting the various market segments in need of KWS solutions, as well as, the specific requirements of each market segment. The work also includes a detailed description of the complexity of the task and the different methods that are used, including the advantages and disadvantages of each method and an in-depth comparison. The main focus will be on the Phonetic Search method and its efficient implementation. This will include a literature review of the various methods used for the efficient implementation of Phonetic Search Keyword Spotting, with an emphasis on the authors' own research which entails a comparative analysis of the Phonetic Search method which includes algorithmic details. This brief is useful for researchers and developers in academia and industry from the fields of speech processing and speech recognition, specifically Keyword Spotting.