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Sommario/riassunto

Naturalness in synthetic speech is one of the most intractable problems in information technology today. Although speech synthesis systems have improved considerably over the last 20 years, they rarely sound entirely like human speakers. Why is this so, and what can be done about it? * Prosodic processing must be rendered more varied and more appropriate to the speech situation* Timing, melodic control and the relationships between the various prosodic parameters need increased attention* Signal processing systems must be developed and perfected that are capable of generating more than just one voice from a database* A better understanding must be achieved of what distinguishes one voice from another, and of how speech styles differ between simply reading aloud numbers and sentences and their use in interactive speech * New evaluation methodologies should be developed to provide objective and subjective measurements of the intelligibility of the synthetic speech and the cognitive load imposed upon the listener by impoverished stimuli * Adequate text markup systems must be proposed and tested with multiple languages in real-world situations* Further research is required to integrate speech synthesis systems into larger natural-language processing systems

Improvements in Speech Synthesis presents the latest research in the above areas. Contributors include speech synthesis specialists from 16 countries, with experience in the development of systems for 12 European languages. This volume emerges from a four-year European COST project focussed on "The Naturalness of Synthetic Speech", and will be a valuable text for everyone involved in speech synthesis.
