cases	doc_1		doc_2		decision	id
	authors	• Schomaker, Lambert	**authors**	• Schomaker, Lambert		
			title	Caveats on Bayesian and hidden-Markov models (v2.8)		
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	journal		**doi**	None		
	volume		**urls**	• https://core.ac.uk/download/518748347.pdf		
	doi	None	**id**	id-1587066492160013619	DUPLICATES	101
	urls	• https://core.ac.uk/download/519015182.pdf	**abstract**	This paper describes a number of fundamental and practical problems in the application of hidden-Markov models and Bayes when applied to cursive-script recognition. Several problems, however, will have an effect in other application areas. The most fundamental problem is the propagation of error in the product of probabilities. This is a common and pervasive problem which deserves more attention. On the basis of Monte Carlo modeling, tables for the expected relative error are given. It seems that it is distributed according to a continuous Poisson distribution over log probabilities. A second essential problem is related to the appropriateness of the Markov assumption. Basic tests will reveal whether a problem requires modeling of the stochastics of seriality, at all. Examples are given of lexical encodings which cover 95-99% classification accuracy of a lexicon, with removed sequence information, for several European languages. Finally, a summary of results on a non- Bayes, non-Markov method in handwriting recognition are presented, with very acceptable results and minimal modeling or training requirements using nearest-mean classification.Comment: Difference of v2.8 with v2.7: a) Final empirical (simulation) table for word-trie experiment with epsilon-in-the-probabilities; b) Some small text changes; c) used ispel		
	id	id3676988730728874566				
	abstract	None				
	versions		**versions**			