Multimedia Appendix 1

Context Probability Interpolation

An example of the general method of context probability interpolation is the probability of character "l" in the context of the word medical calculated as a sum of conditional probabilities of this character in dependence of different context length up to the limited maximal length, in this particular case equal to 5:

$P_{blended}$ ('l') = λ_5 · P("l" | "edica") + λ_4 · P("l" | "dica") + λ_3 · P("l" | "ica") + λ_2 · P("l" | "ca") + λ_1 · P("l" | "a") + λ_0 · P("l")

where λ_i (i = 1...5) are normalization coefficients; some of them can be equal to zero and

$$\sum_{i=1}^{5} \lambda_i = 1$$

, where 5 is the maximal length of the context.