

Simítás

(2)

$$P(X_u | e_{1:t}) = P(X_u | e_{1:k}, e_{u+1:t}) =$$

$$= \propto P(X_u | e_{1:k}) P(e_{u+1:t} | X_u, e_{1:k}) = \propto P(X_u | e_{1:k}) P(e_{u+1:t} | X_u)$$

statis ~~statis~~

$$P(e_{u+1:t} | X_u) = \sum_{X_{u+1}} P(e_{u+1:t} | X_u, X_{u+1}) P(X_{u+1} | X_u) =$$

(evidencia jöslése) dinamika

$$= \sum_{X_{u+1}} P(e_{u+1:t} | X_{u+1}) P(X_{u+1} | X_u)$$

$$= \sum_{X_{u+1}} P(e_{u+1} | X_{u+1}) P(e_{u+2:t} | X_{u+1}) P(X_{u+1} | X_u)$$

[e_{u+1}, e_{u+2:t}]

$P(u_{1:t}) = P(u_{1:t}) P(u_{1:t})$
↑ ↑ ↑
e e₁ e₂

relatív

megfelelő
frakció

dinamika

U_1 U_2

↓
 R_1

(?)

$$P(R_1 | U_1, U_2) = \propto P(R_1 | U_1) P(U_2 | R_1)$$

$$\propto \begin{bmatrix} .818 \\ .182 \end{bmatrix}$$

(*)

$$P(U_2 | R_1) = \sum_{r_2} P(U_2 | r_2) P(r_2 | R_1)$$

$$\oplus \begin{bmatrix} .9 \\ .2 \end{bmatrix} \begin{bmatrix} .7 \\ .3 \end{bmatrix} \begin{bmatrix} 1 \\ 1 \end{bmatrix} = \begin{bmatrix} .63 \\ .41 \end{bmatrix}$$

$$\propto \begin{bmatrix} .818 \\ .182 \end{bmatrix} \begin{bmatrix} .63 \\ .41 \end{bmatrix} = \propto \begin{bmatrix} .56442 \\ .07462 \end{bmatrix} \approx \begin{bmatrix} .883 \\ .117 \end{bmatrix}$$

$\sum .63904$