

$$D = (w_1, w_2, \dots, w_n)$$

$$P(D|R) = P(w_1, w_2, \dots, w_n|R)$$

$$= P(w_1|R)P(w_2|R, w_1)P(w_3|R, w_1, w_2) \dots P(w_n|R, w_1, \dots, w_{n-1})$$

$$= P(w_1|R)P(w_2|R) \dots P(w_n|R)$$

$$= \prod_{i=1}^n P(w_i|R)$$