

$x_{11}, x_{12}, \dots, x_{1d}$ , apply some nonlinear functions  $[\phi_1, \phi_2, \dots, \phi_m]$  to the vector

→ What we get is a matured feature vector  
it may be a linear model of matured features  
but non linear model of original features  
if the basis functions  $[\phi_1, \dots, \phi_m]$  are non linear

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