

Sorry this was confusing. When we write $x \in \mathbb{R}^d$, we're thinking of x as a vector. When we want to think of a vector as a matrix, then our convention is indeed to think of x as a column vector, which is a matrix with one column. We'd make this explicit by writing $x \in \mathbb{R}^{d \times 1}$. So yes, the design matrix is

$$\begin{pmatrix} - & x_1^T & - \\ - & x_2^T & - \\ - & x_n^T & - \end{pmatrix},$$

where $x_1, \dots, x_n \in \mathbb{R}^{d \times 1}$. But given our convention, I see $x_1, \dots, x_n \in \mathbb{R}^d$ as equivalent. Anyway, notation is very important. And I will take your concern under advisement. I'll let you know if I decide to change the notation.