

Still no Peter<sup>14</sup>

1. Block diagram

$u(n)$  = primary mic

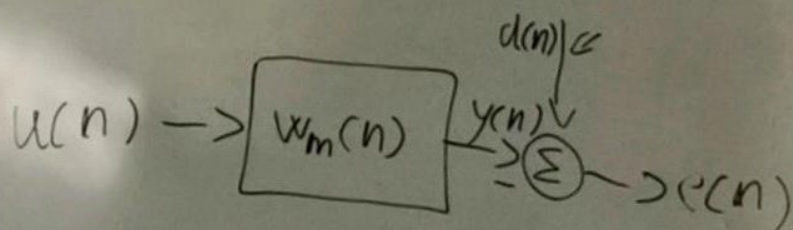
$x(n)$  = music

$v(n)$  = noise

$$u(n) = x(n) + v(n)$$

$d(n)$   $\approx$  reference a version of noise

Build a filter that predicts the noise in  $u(n)$  from  $d(n)$



Prediction:  $\hat{v}(n) = w_m(n) \cdot d(n)$

Cleaned output:  $y(n) = u(n) - \hat{v}(n)$