The learning diagram - with error measure

UNKNOWN TARGET FUNCTION
\( f : X \rightarrow Y \)

TRAINING EXAMPLES
\( (x_1, y_1), \ldots, (x_N, y_N) \)

PROBABILITY DISTRIBUTION
\( P \) on \( X \)

ERROR MEASURE
\( e() \)

LEARNING ALGORITHM
\( \mathcal{A} \)

FINAL HYPOTHESIS
\( g : X \rightarrow Y \)

HYPOTHESIS SET
\( \mathcal{H} \)