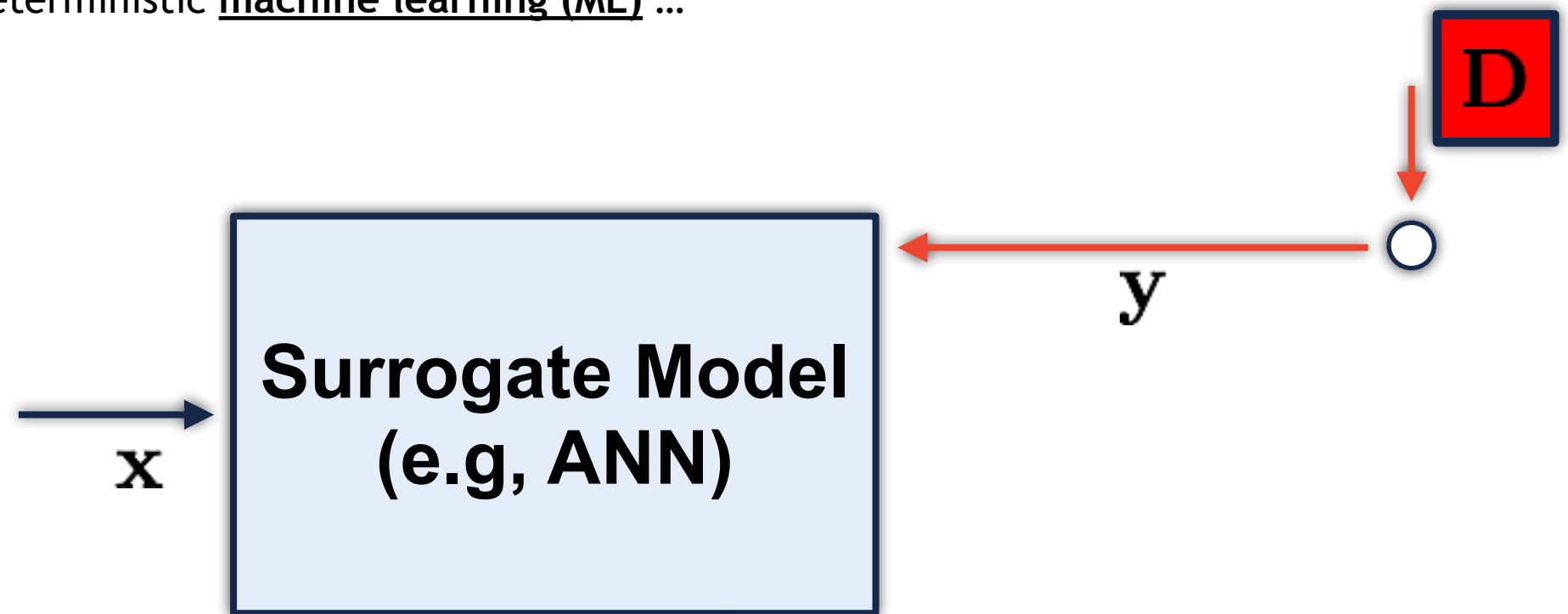


The 3-Steps Reliability Assessment

- **Model Calibration** (or **Inverse Problem**)

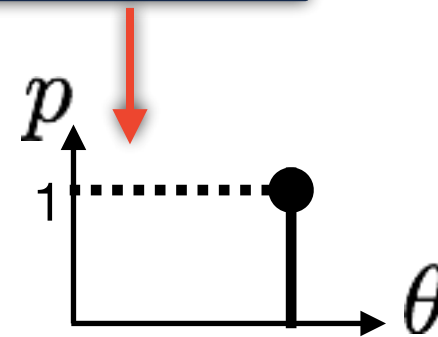
- Validation
- Predictive Assessment

Similar to training process in deterministic machine learning (ML) ...



..., but in classic ML:

- The parameters are not treated as random variables;
- The model is deterministic;
- The training happens by means of an optimization algorithm (e.g., ADAMS);
- The **computational model is generally not expensive**;
- **Plenty of data available.**



The 3-Steps Reliability Assessment

- Calibration
- Validation (or Model Prediction)
- Predictive Assessment

Outputs from a calibrated model are checked for consistency with available observation. We must assess whether the validation data are plausible according to the model.

