

Related Work

- Collect neighborhoods with weights
- Generate a individual explainer
- Use White-box models

- **Globally** train local explainer
- Use **Neural Network** models
- Based mutual information definition

Fixed Number of Selection & Non-Real Time

- LIME (Local Interpretable Model-agnostic Explanations)
- SHAP (SHapley Additive exPlanations)

Fixed Number of Selection & Real Time

- L2X (Learning to Explain)
- MEED (Model-agnostic Effective Efficient Direct)

Variable Number of Selection & Real Time

- INVASE
(Instance-wise Variable Selection using Neural Network)

- **Globally** train local explainer
- Use **Neural Network** models
- Based **Actor-Critic** methodology

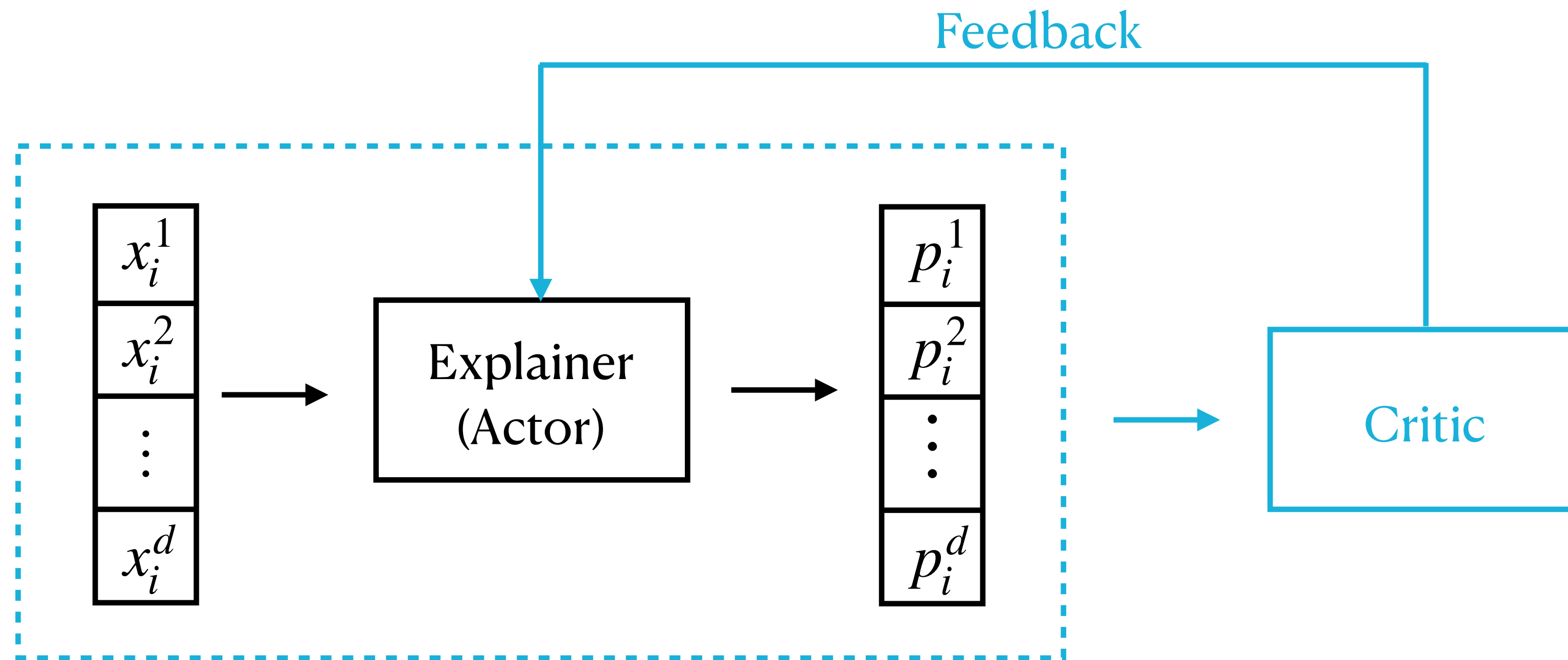
Methods	Neural Network-based Explainer	Real-time Explanation	Need to decide the number of features to select	Use of Unselected Features
LIME	×	×	✓	×
SHAP	×	×	✓	×
L2X	✓	✓	✓	×
MEED	✓	✓	✓	✓
INVASE	✓	✓	×	×

Related Work

Fixed Number of Selection & Non-Real Time	Methods	Neural Network-based Explainer	Real-time Explanation	Need to decide the number of features to select	Use of Unselected Features
<ul style="list-style-type: none">LIME (Local Interpretable Model-agnostic Explanations)SHAP (SHapley Additive exPlanations)	LIME	×	×	✓	×
Fixed Number of Selection & Real Time	SHAP	×	×	✓	×
<ul style="list-style-type: none">L2X (Learning to Explain)	L2X	✓	✓	✓	×
<ul style="list-style-type: none">MEED (Model-agnostic Effective Efficient Direct)	MEED	✓	✓	✓	✓
	INVASE	✓	✓	×	×
Variable Number of Selection & Real Time					
<ul style="list-style-type: none">INVASE (Instance-wise Vari- able Selection using Neural Network)					

Related Work

Actor-Critic Based IFS Methods



- Actor (Explainer): Pick features for a given instance
- Critic: Evaluate the goodness of current Actor