Teaching Unknown Learners to Classify via Feature Importance

Carla Guerra[1]*, Francisco S. Melo[1], Manuel Lopes[1]

[1] INESC-ID & Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal; * carla.guerra@gaips.inesc-id.pt

1 MOTIVATION

Software systems can facilitate and enhance education

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Teaching relies on providing examples

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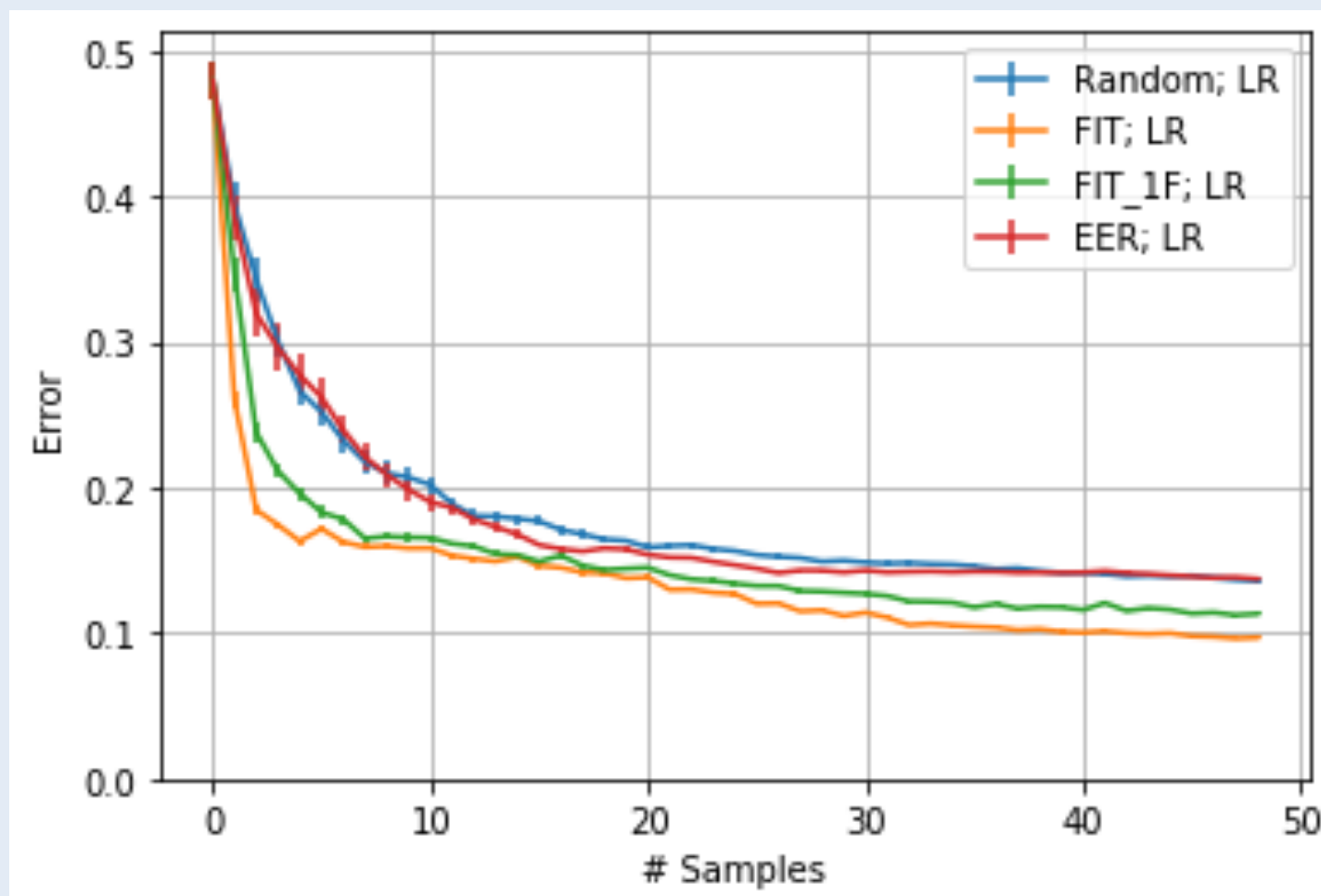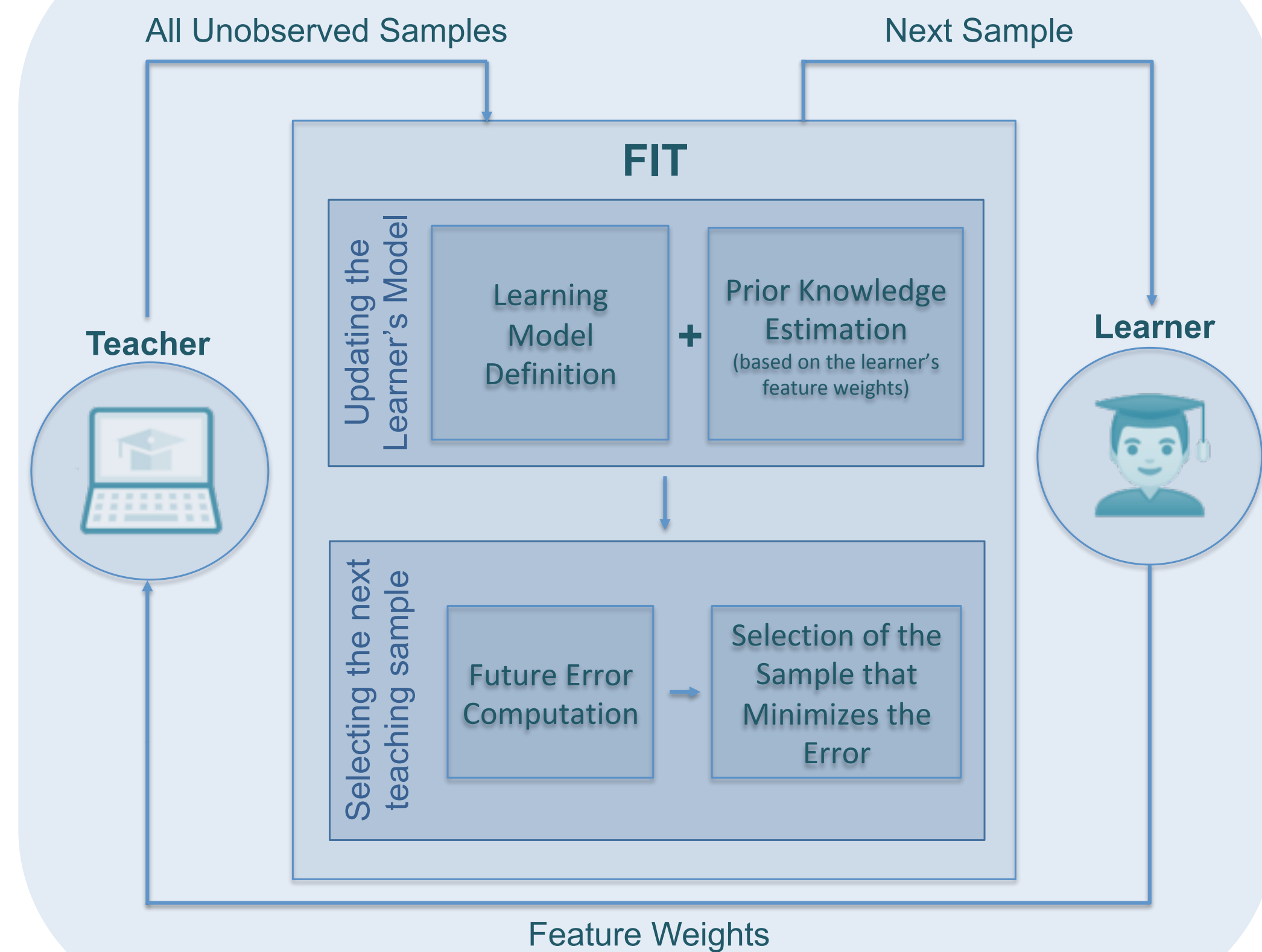Selecting examples that are more informative for each particular learner

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Improves learning efficiency – less effort both for teacher and student

2 THE FIT APPROACH

All Unobserved Samples — Next Sample

FIT

Teacher

Updating the Learner's Model:
Learning Model Definition **+** Prior Knowledge Estimation (based on the learner's feature weights)

Selecting the next teaching sample:
Future Error Computation → Selection of the Sample that Minimizes the Error

Learner

Feature Weights

3 RESULTS

Legend: Random; LR — FIT; LR — FIT_1F; LR — EER; LR
Axes: Error vs # Samples

Acknowledgments

TÉCNICO LISBOA   gaips   inesc id lisboa