LabelNoise 2017
Conclusion & Discussion

Reasons and Motivations

- ✓ Confirm an impression of multiple singular, peripheral initiatives
- ✓ Check if there can be a common language, interest
- ✓ Share, exchange and compare approaches

Possibly check if there is an interest in follow-up and interest/need in more regular opportunities to meet and exchange.

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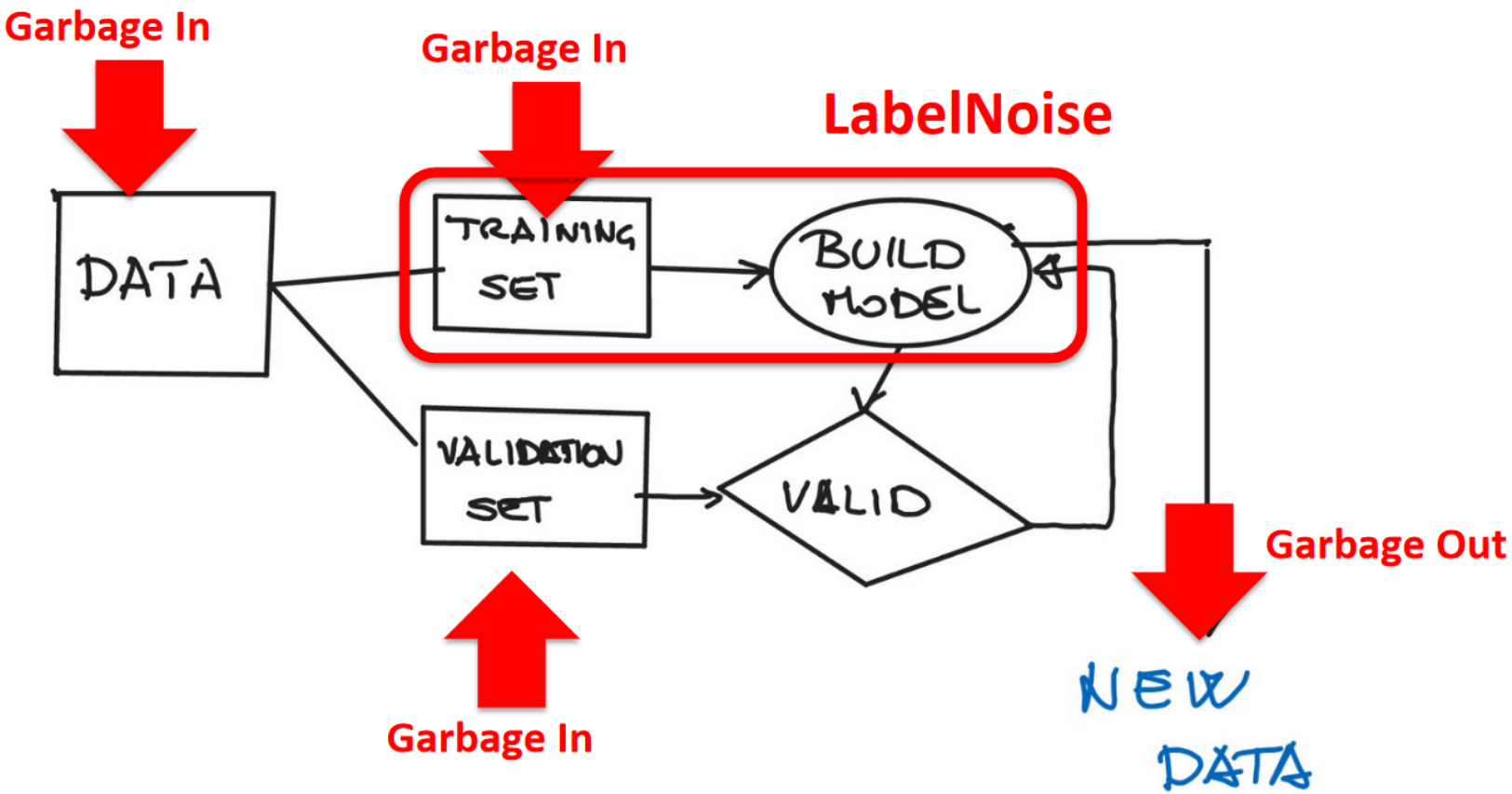
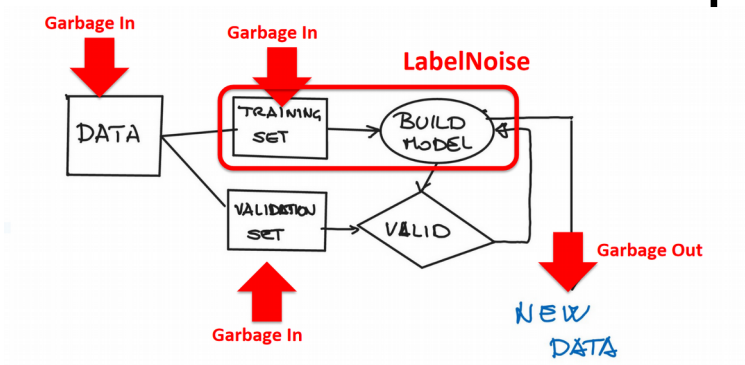
Back to the First Talk …



Revisiting the Talks

- ✓ **L. Berti-Equille**
- ✓ Ph. Thomas
- ✓ G. Blanchard
- ✓ E. Koudou
- ✓ B. Frénay
- ✓ M. Geist
- ✓ A. Kaban
- ✓ JC. Lamirel
- ✓ D. Lopresti
- ✓ Ch. Pelletier

- ✓ Effect of Noise on Classifiers
- ✓ Preprocessing stratgies



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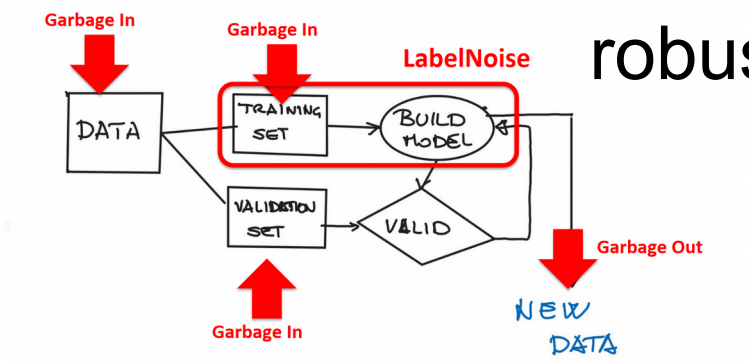
✓ Taking noise into account

✓ Make classifiers more robust



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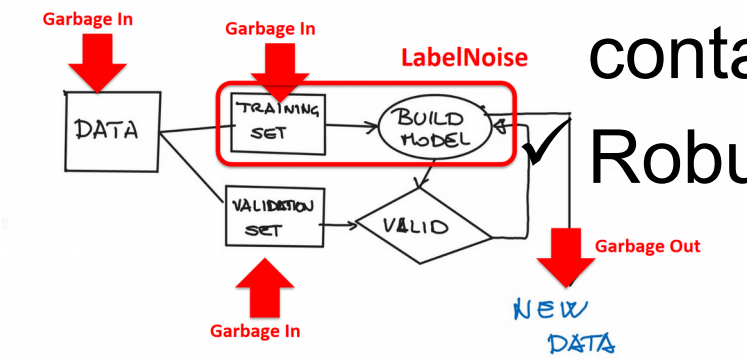

- ✓ Formalization of contamination models
- ✓ Bounds on contamination
- ✓ Robustify Classifiers

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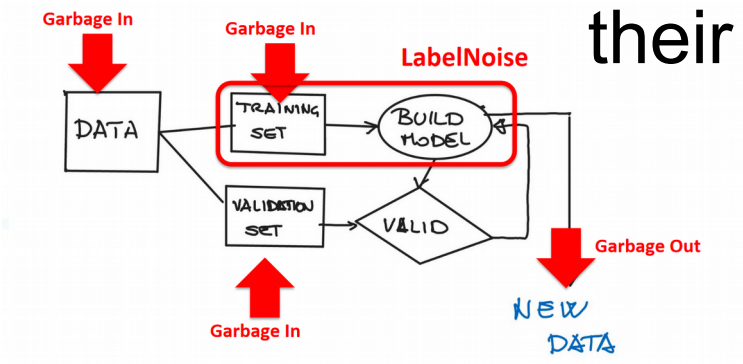

- ✓ Statistical tools for measuring confidence in classification (and their rankings)

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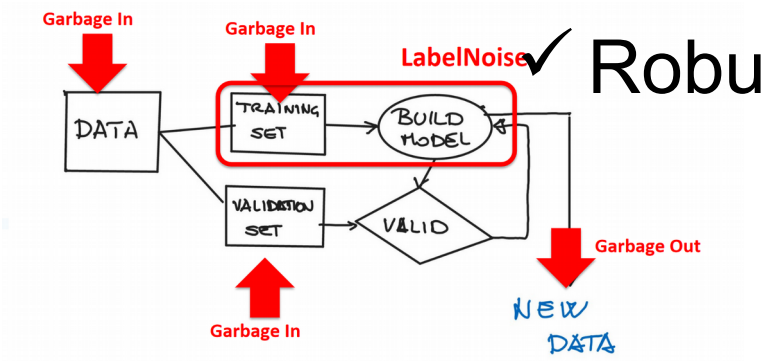

- ✓ Probabilistic model for noise
- ✓ Robust feature selection
- ✓ Robustify Classifiers

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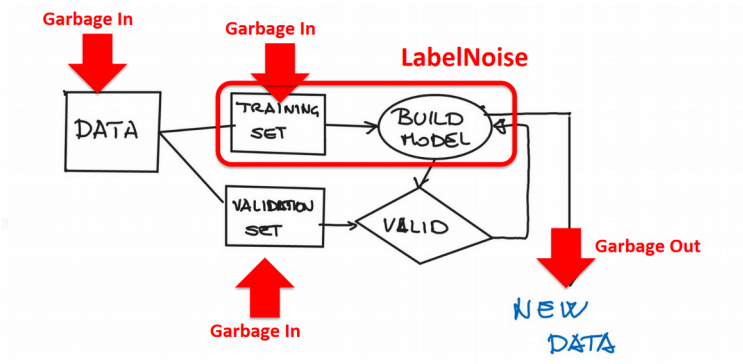
- ✓ Complex (non-convex) Boosting
- ✓ Robustifying Classifiers



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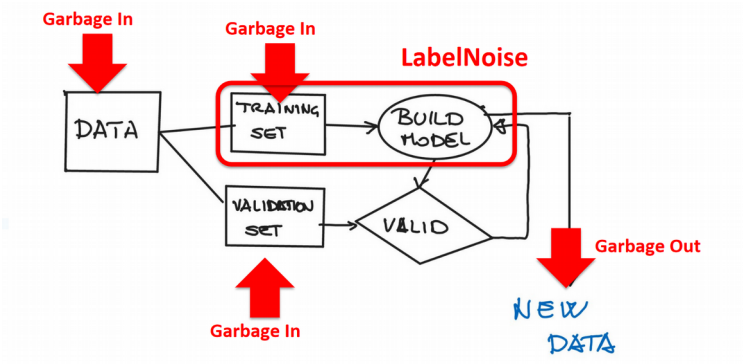
- ✓ Non linear learning models
- ✓ Robustifying classifiers



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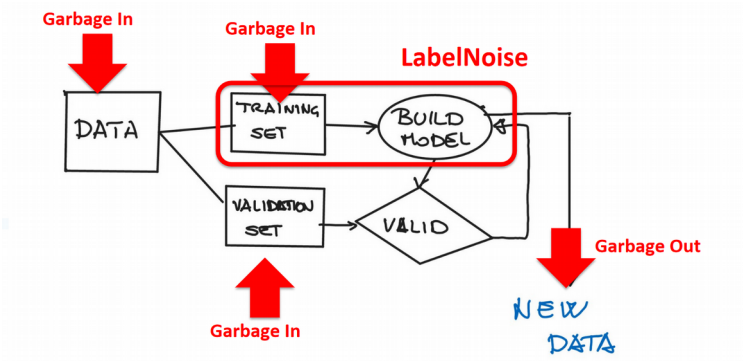
✓ Non-conventional robust clustering



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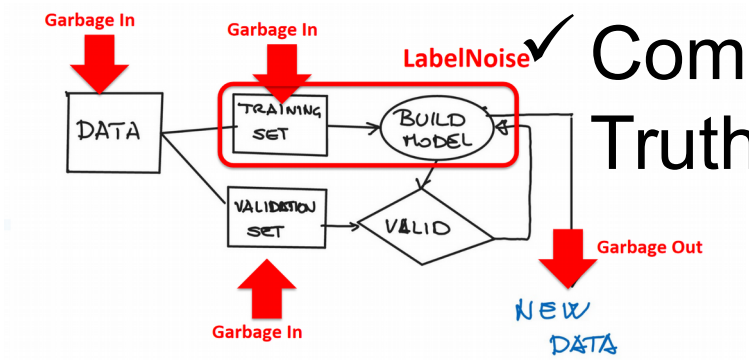

- ✓ Complex and inherently context-dependant noise models
- ✓ Complexity of Ground Truth

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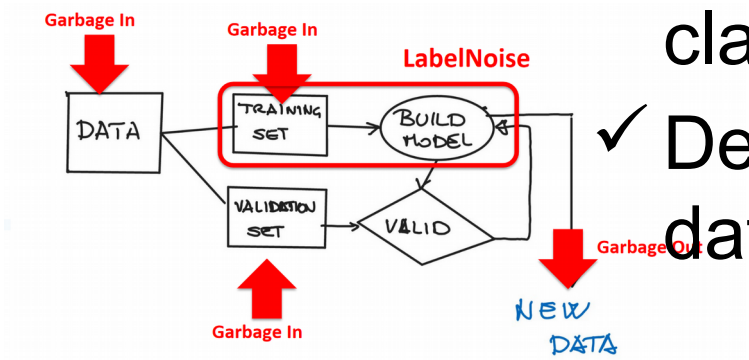

- ✓ Measure impact of mislabelled training data on final classification
- ✓ Detecting Mislabeled data

Open Thought Food

- ✓ Non-noisy vs. noisy validation data
- ✓ Non-uniform, Data-correlated, Context-related « noise »
- ✓ Agreement - Disagreement

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