ORES Custom Documentation VI

Disclaimer: No guarantee for the correctness of information / explanations / sources is given.

Goals

1. Metrics List: Create Table as a general quick-view
2. Metrics: which combinations are particularly useful, which are nonsensical?
   - Ask for documentation on IRC (✓)
   - Logically exclude combinations?
   - Document outputs
3. Recent Changes filter classes: how are edits assigned to them?
   - Also ask for documentation on IRC ✓
   - Which metrics are included in the process? ✓
   - How are the metrics (precision, recall, threshold) included in the associated API calls? What do the (GET?)-Requests look like?
4. Take a closer look at the Threshold Plot for Logistic Regression (Link)
   - What is the meaning of the areas around the curves?
   - What is queue rate exactly?
5. Take a closer look at the Swagger API Documentation
6. !!! Improve knowledge of ORES Docs and foremost the metrics

1 Metrics List: Table

Metric	Quick Definition	Value
accuracy	Portion of correctly predicted data	$\frac{\texttt{TP+TN}}{\texttt{Total}}$
counts	Number of **F**&**T**-labels and predictions	
f1	Harmonic mean of recall and precision	$2 * \frac{\texttt{prec*rec}}{\texttt{prec+rec}}$
filter_rate	Portion of observations predicted to be negative	$1 - \texttt{match\_rate} = \frac{\texttt{TN+FN}}{\texttt{Total}}$
fpr	Probability of a false alarm	$\frac{\texttt{FP}}{\texttt{FP+TN}}$
match_rate	Portion of observations predicted to be positive	$\frac{\texttt{TP+FP}}{\texttt{Total}}$
pr_auc	Measure of classification performance	
precision	Ability to find only relevant cases	$\frac{\texttt{TP}}{\texttt{TP+FP}}$
rates	Proportion of **F**&**T**-labels to the total	
recall	Ability to find **all** relevant cases	$\frac{\texttt{TP}}{\texttt{TP+FN}}$
roc_auc	Measure of classification performance	
!f1	Negated f1	
!precision	Negated precision	$\frac{\texttt{TN}}{\texttt{TN+FN}}$
!recall	Negated recall	$\frac{\texttt{TN}}{\texttt{TN+FP}}$

2 Metrics combinations

example: `https://ores.wikimedia.org/v3/scores/enwiki/?models=damaging&model_info=statistics.thresholds.true.%27maximum%20!precision%20@%20precision%20%3E=%200.9%27`

3 Recent Changes Quality Prediction Filters

The Recent Changes quality prediction filters are a helpful tool in varying the precision and recall of catching damaging edits. They can be applied on the Recent changes site (Link).

Contribution quality predictions

Filter	Precision	Recall	Threshold range	
Very likely good	99%	91.1%	0	0.315
May have problems	15%	86.3%	0.144	1
Likely have problems	45.7%	48.1%	0.612	1
Very likely have problems	90%	8.2%	0.912	1

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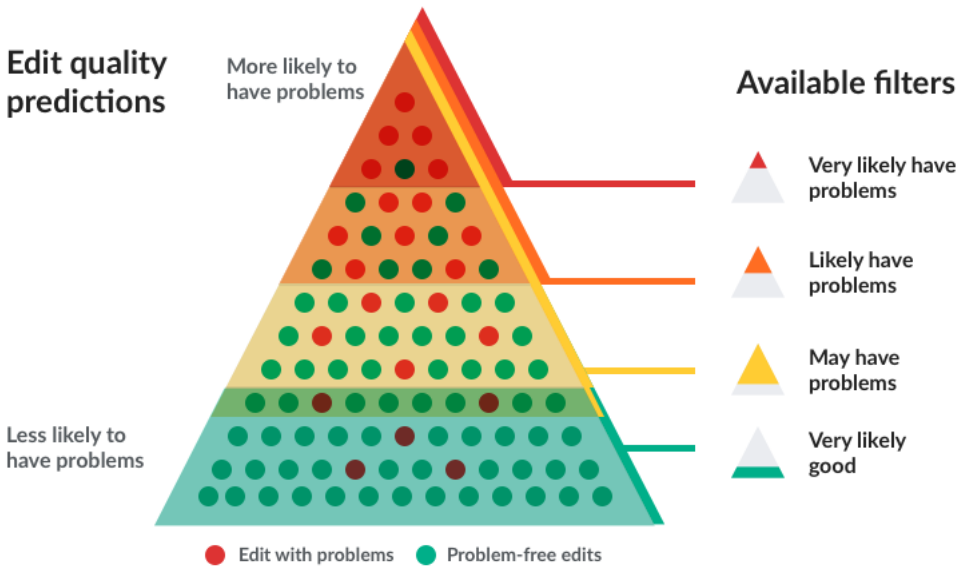
To put those numbers into context: we can expect that, for example, the *Likely have problems* filter will be right about 45.7% of the time, classifying a contribution as damaging while catching 48.1% of problem edits.
To better understand threshold ranges it's helpful to also take a look at the following graphic:



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