ORES Preparation II

Tom Gülenman

6. Dezember 2018

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

1 Basic API Usage

- `http://ores.wmflabs.org/v3/scores/enwiki/?models=draftquality|wp10&revids=34854345|485104318`

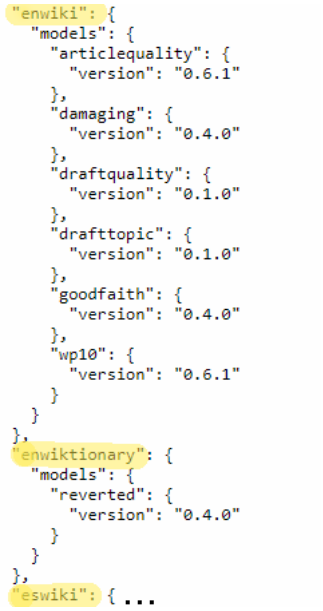
  Scoring, Context = enwiki, Models (2), RevIDs (2)

2 ORES Scoring Documentation

https://ores.wikimedia.org/v3/#/

- https://ores.wikimedia.org/v3/scores

  Lists all available contexts (wikis) for scoring



Models: reverted, damaging, goodfaith, articlequality, draftquality, drafttopic, wp10, pagelevel, itemquality

- https://ores.wikimedia.org/v3/scores/{context}

  For example enwiki

  Shows the specified context only

- https://ores.wikimedia.org/v3/scores/{context}/{revid}

  Shows all scoring information on an edit of the specified context

  Find revision ID of any article: top right: View history → click on time/data-link → ID displayed in URL at the end

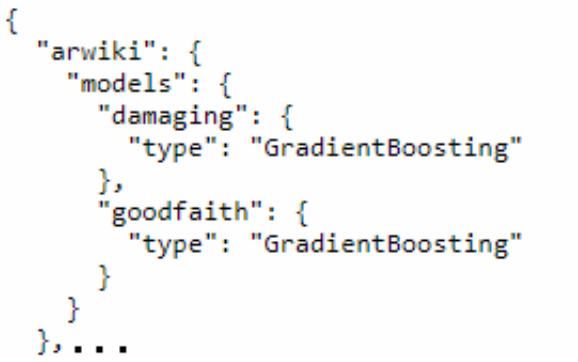
```
{
  "enwiki": {
    "models": {
      "articlequality": {
        "version": "0.6.1"
      },
      "damaging": {
        "version": "0.4.0"
      },
      "draftquality": {
        "version": "0.1.0"
      },
      "drafttopic": {
        "version": "0.1.0"
      },
      "goodfaith": {
        "version": "0.4.0"
      },
      "wp10": {
        "version": "0.6.1"
      }
    },
    "scores": {
      "870259881": {
        "articlequality": {
          "score": {
            "prediction": "B",
            "probability": {
              "B": 0.5301044828795669,
              "C": 0.09410444935893472,
              "FA": 0.10609462640332888,
              "GA": 0.2630374655004465,
              "Start": 0.005353767142851241,
              "Stub": 0.001305208714871623
            }
          }
        },
        "damaging": { . . .
```


- https://ores.wikimedia.org/v3/scores/{context}/{revid}/{model}

  Furthermore a model can be specified

- Add /?model_info={model_info} to any query (at the end!)

  For example: *model_info* = type, statistics



3 Specifying parameters

- From the paper: `https://ores.wikimedia.org/v3/scores/enwiki/?models=damaging&model_info=statistics.thresholds.true.'maximumfilter_rate@recall>=0.75'`

  (spaces: maximum filter_rate @ recall >= 0.75')

  Information:

  - only **damaging**-model
  - model_info: **statistics** ← this is what we need for parameters in our *Visualisierung des Systemverhaltens*

4 Parameters

4.1 Model: Damaging

4.1.1 Thresholds

Interesting: model_info=statistics.thresholds.true

Show all true values of parameters (that are not in red below) with the threshold value from 0.002 to 0.987 (not every step, but many!)

Without ".true" → we got double the results divided in false: [...] and true: [...]

4.1.2 Different parameters

- !f1
- !precision
- !recall
- accuracy
- counts
- f1
- filter_rate
- fpr
- match_rate
- pr_auc
- precision
- rates
- recall
- roc_auc

4.2 Model: Articlequality

4.2.1 Thresholds

Interesting: model_info=statistics.thresholds
→".true" doesn't work

Lists for each article quality (Stub to FA) the values for each parameter, given a threshold

```
{
  "enwiki": {
    "models": {
      "articlequality": {
        "statistics": {
          "thresholds": {
            "B": [
              {
                "!f1": null,
                "!precision": null,
                "!recall": 0.0,
                "accuracy": 0.035,
                "f1": 0.067,
                "filter_rate": 0.0,
                "fpr": 1.0,
                "match_rate": 1.0,
                "precision": 0.035,
                "recall": 1.0,
                "threshold": 0.002
              },
              {
                "!f1": 0.003,
                "!precision": 1.0,
                "!recall": 0.002,
                "accuracy": 0.036,
                "f1": 0.067,
                "filter_rate": 0.002,
                "fpr": 0.998,
                "match_rate": 0.998,
                "precision": 0.035,
                "recall": 1.0,
                "threshold": 0.003
              },
```


4.2.2 Different parameters

Same as above.

5 Clearing up confusion about parameters from before

Paper page 15: "when a threshold is set on 0.299 likelihood of damaging=true, then you can expect to get a recall of 0.751, precision of 0.215, and a filter-rate of 0.88"

- Threshold on 0.299 of damaging=true → if probability that an article is damaging ≥ 0.299, then it is declared as damaging
- Recall: 0.751 → given threshold catches 75.1% of (most) damaging edits
- Precision: 0.251 → approx. $\frac{1}{4}$ of edits, declared as damaging, actually are

- Filter-rate : 0.88 → work of vandal-fighters reduced by 88%

6 Specifying parameters II

6.1 Querying formulas

Paper:

- `https://ores.wikimedia.org/v3/scores/enwiki/?models=damaging&model_info=statistics.thresholds.true.'maximumfilter_rate@recall>=0.75'` → write as "**maximum filter_rate @ recall >= 0.75**"
- **maximum recall @ precision >= 0.9** produces:


```
{
  "enwiki": {
    "models": {
      "damaging": {
        "statistics": {
          "thresholds": {
            "true": [
              {
                "!f1": 0.984,
                "!precision": 0.969,
                "!recall": 1.0,
                "accuracy": 0.968,
                "f1": 0.154,
                "filter_rate": 0.997,
                "fpr": 0.0,
                "match_rate": 0.003,
                "precision": 0.902,
                "recall": 0.084,
                "threshold": 0.916
              }
```


- **maximum** can be replaced with **minimum**
- >= can be replaced with <=
- Both parameters can be replaced with any from the list above (except threshold ofc, which is not a parameter)

Parameters to use in ORES' API queries

Example format: `https://ores.wikimedia.org/v3/scores/enwiki/?models=damaging&model_info=statistics.thresholds.true.'maximumfilter_rate@recall>=0.75'`

(spaces: maximum filter_rate @ recall >= 0.75' or "%20" in HTTP)

- !f1
- !precision
- !recall
- accuracy
- f1
- filter_rate
- fpr
- match_rate
- precision
- recall