Appraise | a prāz



Christian Federmann, DFKI LT Lab



Appraise | a prāz |

verb [with obj.] assess the value or quality of



Christian Federmann, DFKI LT Lab



Overview

- Appraise in a nutshell
- Annotation tasks
- Added extras
- Available for free
- Outlook

```
# -*- coding: utf-8 -*-
Project: Appraise evaluation system-
Author: Christian Federmann <cfedermann@dfki.de>-
import logging
from django.contrib.auth.views import login as LOGIN, logout as LOGOUT-
from django.shortcuts import render-
from appraise.settings import LOG_LEVEL, LOG_HANDLER, COMMIT_TAG-
# Setup logging support.-
logging.basicConfig(level=LOG_LEVEL)-
LOGGER = logging.getLogger('appraise.views')-
LOGGER.addHandler(LOG_HANDLER)-
def frontpage(request):-
    Renders the front page view.-
    LOGGER.info('Rendering frontpage view for user "{0}".'.format(-
      request.user.username or "Anonymous"))-
    dictionary = {-
      'commit_tag': COMMIT_TAG,¬
      'title': 'Appraise evaluation system',-
    return render(request, 'frontpage.html', dictionary)-
def login(request, template_name):-
   Renders login view by connecting to django.contrib.auth.views.-
```

Appraise in a nutshell

System Description

- ▶ Appraise is...
 - an open-source tool for MT evaluation
 - available under a BSD license from GitHub
 - > actively maintained and extended
 - ▶ alive and kicking since 2008...

Features

- ▶ Appraise implements...
 - translation quality checking
 - ranking of translations
 - error classification
 - manual post-editing

Batteries Included

- ▶ Appraise comes...
 - ready for deployment as web-based service
 - with inter-annotator agreement scores
 - ▶ offering XML-based import/export formats
 - featuring full-blown administration backend

Say "hello"...

000

Appraise evaluation system

Appraise

Overview

Logout "cfedermann

Welcome to Appraise!

This is the Appraise evaluation system for manual evaluation of machine translation output. It supports collaborative collection of human feedback for evaluation tasks such as *Translation Quality Checking*, *Ranking and Error Classification*, and *Manual Post-Editing*.

See evaluation tasks »

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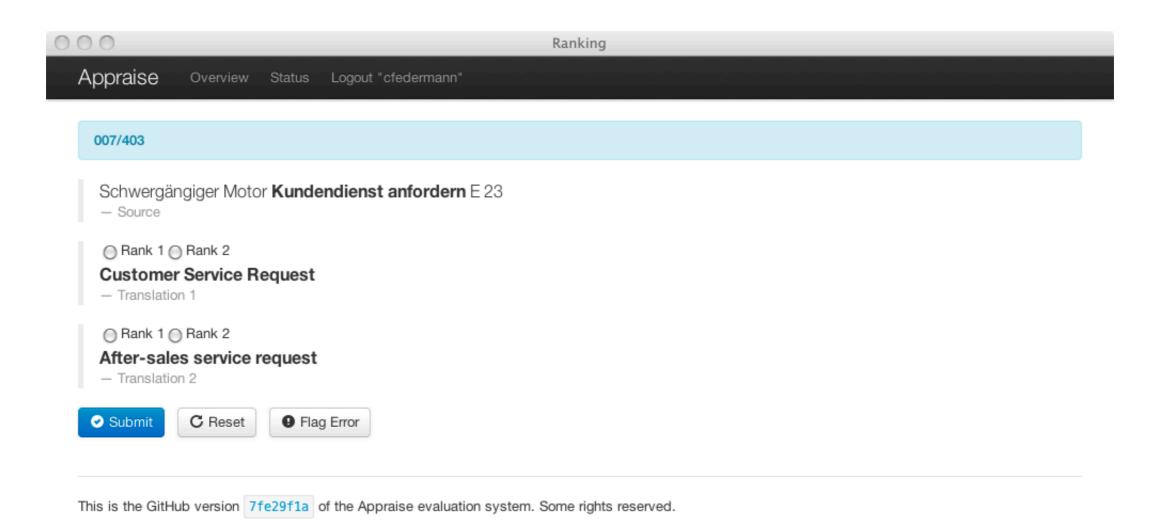
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Annotation Tasks

Ranking

- ▶ Ranking of $n \ge 2$ translations
 - source text and, optionally, reference shown
 - wherever available, context is displayed
 - standard browser controls for ranking
 - UI supports keyboard shortcuts

Ranking



3-Way Ranking



001/200

Thanks to grant funding (subsidy of 2.8 million) they were able to purchase equipment and for the period of two years provide qualified personnel and operation. The European Union announces having allocated in 2010 2.2 thousand million Euros, a good token of observance of its promise of 7.2 thousand million Euros in 2012.

Source

Dank dieser Finanzierung (Zuschüsse in Höhe von 2, 8 Mio. CZK) konnten die notwendigen Einrichtungen und die Ausstattung beschafft werden und für die Dauer von 2 Jahren ist für qualifiziertes Personal und für den Betrieb gesorgt. Die EU verkündet, im Jahre 2010 2,2 Milliarden Euro freigesetzt zu haben, was sie auf den richtigen Weg zur Respektbezollung ihres Engagements von 7,2 Milliarden im Jahre 2012 bringt.

- Reference

Dank Subventionsfinanzierung (Subvention von 2.8 Millionen) konnten sie Ausstattung kaufen und sorgen für den Zeitraum von zwei Jahren für qualifiziertes Personal und Operation.

Translation A

Dank Subventionsfinanzierung (Subvention von 2.8 Millionen) waren sie fähig, um Ausstattung zu kaufen, und sorgen für den Zeitraum von zwei Jahren für qualifiziertes Personal und Operation.

- Translation B

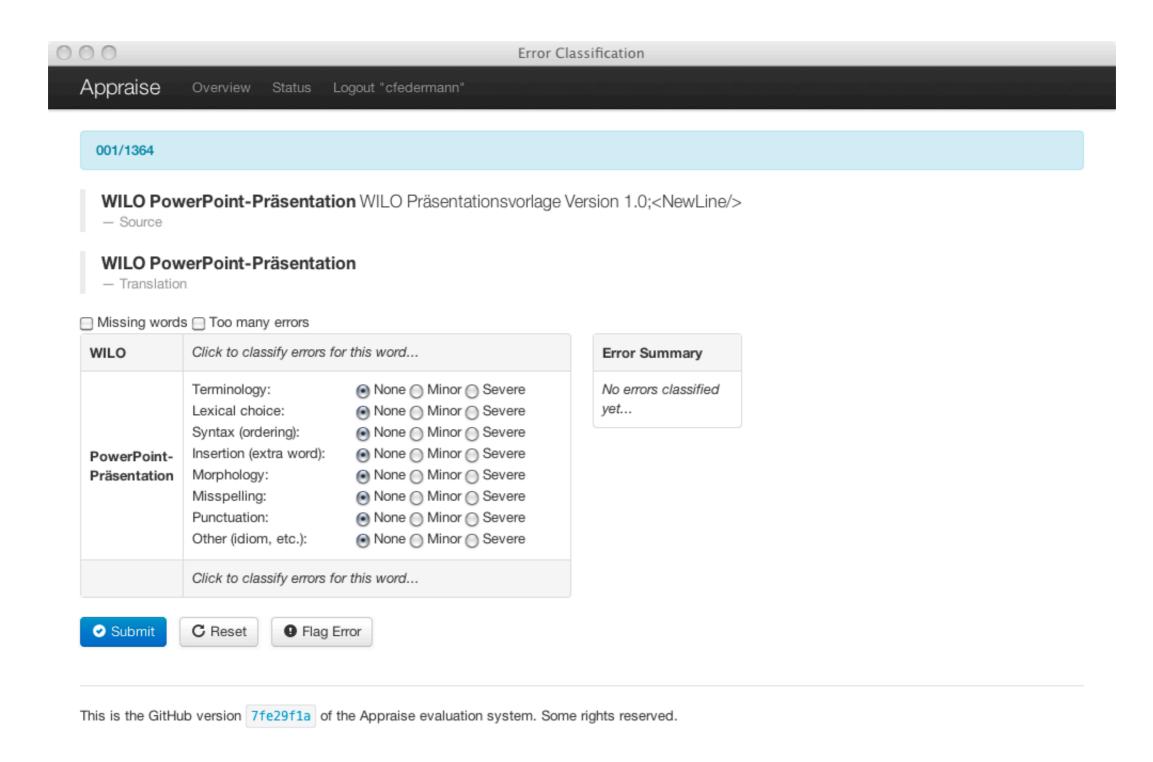


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Error Classification

- Classification of errors in given translation
 - > source (or target) text and translation shown
 - classification based on (Vilar et al., 2006)
 - leglobal errors ("missing words", "too many")
 - local error classes ("minor", "severe")

Error Classification

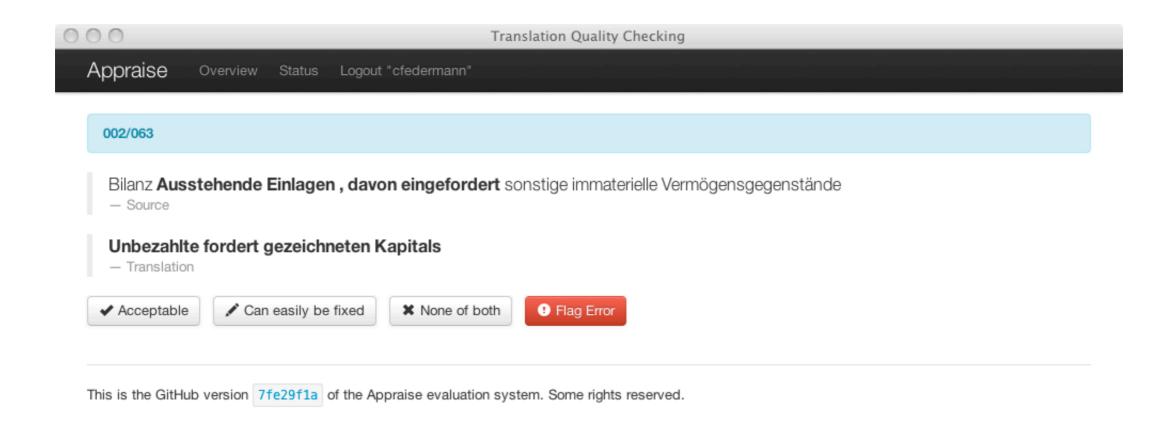


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Quality Estimation

- Duickly estimate quality of given translations
 - source text and translation shown
 - depending on task design, reference given
 - user selects one of three result categories
 - letore focus on quick decisions ("gut feeling")

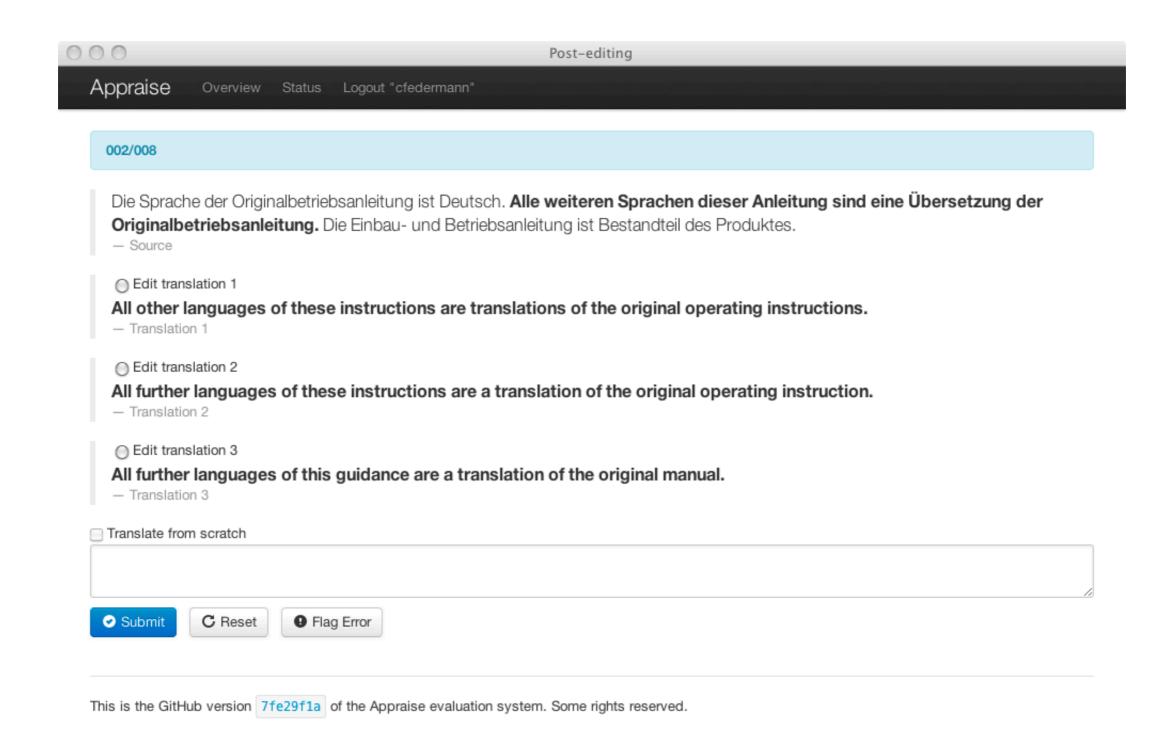
Quality Estimation



Post-editing

- ▶ Post-edit a given translation
 - source and one or more translations shown
 - user selects translation "easiest to post-edit"
 - Translate from scratch" mode
 - simple standard browser controls used

Post-editing



Added Extras

Task Status Overview

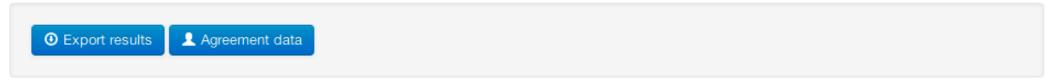
»Holy Diver« Status Overview

User name	Overall completion	Average duration
cfedermann	5/5	4.03 sec
johndoe	0/5	0.00 sec
janedoe	0/5	0.00 sec
Combined	0/5	4.03 sec

Results Overview

A <b< th=""><th>A=B</th><th>A>B</th></b<>	A=B	A>B
2 (40.00%)	2 (40.00%)	1 (20.00%)

Administration Tools



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Agreement Scores

- ▶ Appraise gives you...
 - Krippendorff's α (Krippendorff, 2004)
 - ▶ Fleiss' × (Fleiss, 1971) based on (Cohen, 1960)
 - ▶ Bennett's S (Bennett, 1954)
 - Scott's π (Scott, 1955)

Agreement Scores

»TermEval-COLING« Status Overview

User name	Overall completion	Average duration
Tobias.Wunner	142/142	12.13 sec
Noemi.Aepli	142/142	59.05 sec
Thierry.Declerck	142/142	21.55 sec
Mihael.Arcan	142/142	20.86 sec
Paul.Buitelaar	142/142	25.45 sec
cfedermann	142/142	6.59 sec
Combined	142/142	24.27 sec

Results Overview

ACCEPTABLE	CAN_EASILY_BE_FIXED	NONE_OF_BOTH
504 (59.15%)	250 (29.34%)	98 (11.50%)

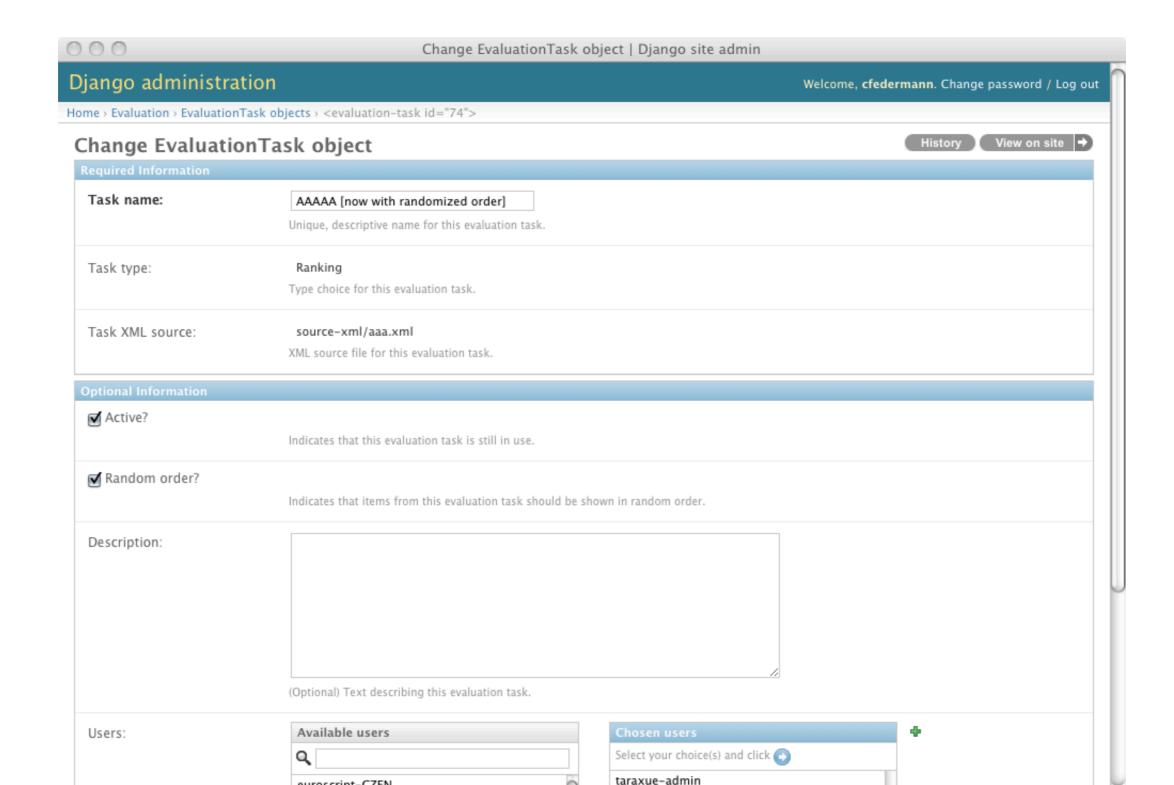
Inter-annotator Agreement

Krippendorff¹s Alpha	Fleiss' Kappa	Bennett's S	Scott's Pi
0.35544494026774454	0.3566810487909947	0.46690140845070416	0.354687531266884

0.35544494026774454	0.3566810487909947	0.46690140845070416	0.354687531266884
Krippendorff's Alpha	Fleiss' Kappa	Bennett's S	Scott's Pi

inter-annotator Agreement

Admin Backend



Available for free

Hosted on GitHub



Hosted on GitHub



https://github.com/cfedermann/Appraise

Outlook

Outlook

- ▶ Appraise will...
 - happily support people trying it out
 - soon get more refined task status views
 - explore new annotation user interfaces
 - improve from your feedback/pull requests

Questions?

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