



WojoodNER 2024:

The 2nd Arabic Named Entity Recognition Shared Task



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Open Source

Arabic NLP Tools and Datasets



<https://sina.birzeit.edu/resources>

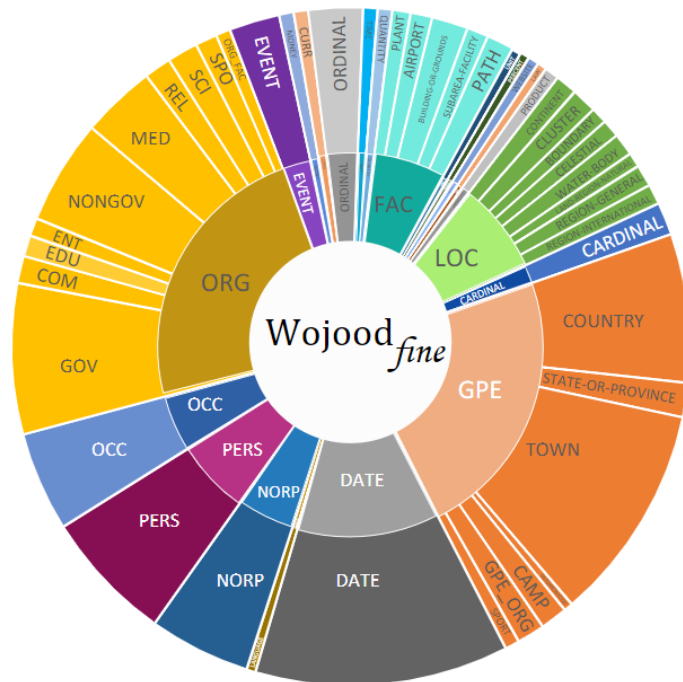
Resources

Download and demo our tools and datasets

- | | |
|--|---|
| + Arabic Ontology | الأنطولوجيا العربية |
| + Lexicographic Databases (Qabas) | حوسبة المعاجم (قبس و150 معجم) |
| + Dialect Corpora (Currasat) | مدونة اللهجات العامية (كراسات) |
| + SinaTools | أدوات سينا |
| + Morphology Tagger (Alma) | المحلل الصرفي (ألمى) |
| + Word Sense Disambiguation (Salma) | المحلل الدلالي (سلمى) |
| + Named Entity Recognition (Wojood) | استخراج أسماء الاعلام (وجود) |
| + Relation Extraction | استخراج العلاقات |
| + Social Computing (Fada) | الإنسانيات الحاسوبية والتواصل الاجتماعي (فضا) |
| + Synonyms | استخراج المترادفات |
| + Chatbots and intent detection (AraBanking77) | المساعدات الآلية |

SharedTask Goal

WojoodNER-2024 focuses on **fine-grained Arabic NER**.



Task Description

Subtask1 – Flat Fine-Grained NER:

(**Wojood**_{Fine} dataset) each token in the data is labelled with only one tag. Each type has one subtype



Subtask2 – Nested Fine-Grained NER:

(**Wojood**_{Fine} dataset) each token can have one or more tags and each type has one or more subtypes



Subtask 3 - Open Track, a flat and nested dataset called **Wojood**^{Gaza} is related to the Israeli War on Gaza.

Shared Task Datasets

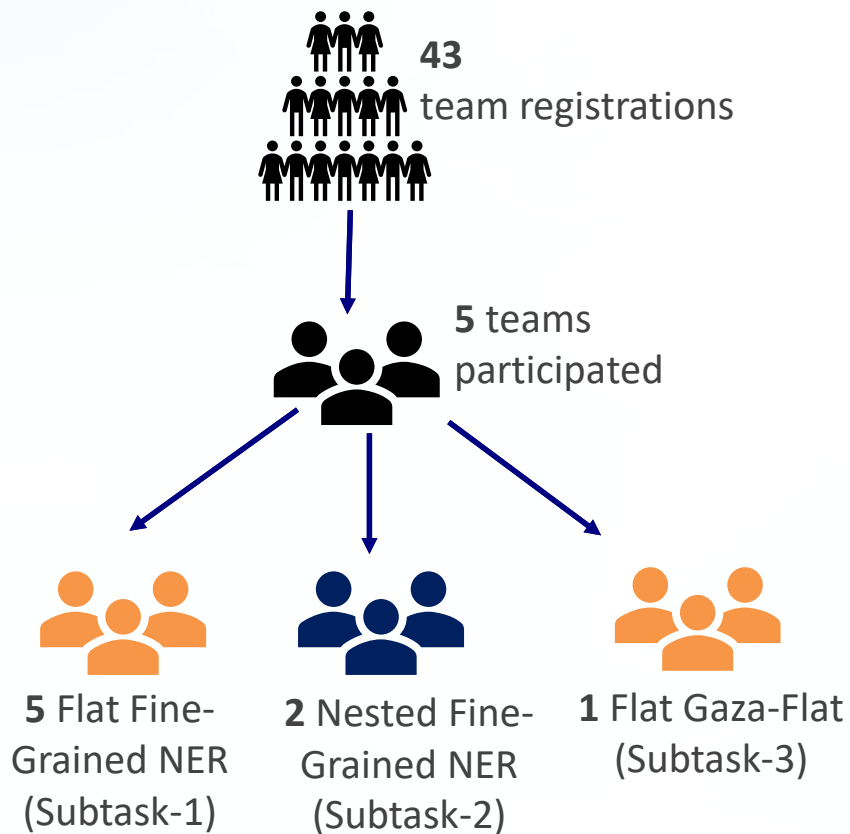
Wojood_{Fine} extension to Wojood (550K tokens) annotated with 51 entity types and subtypes.

Split into **70%** train, **10%** development, and **20%** test at the domain level.

Wojood^{Gaza} corpus (60K tokens) annotated with 51 entity types and subtypes, related Israeli War in Gaza.

Spilt into **10K** development, and **50K** test.

Shared Task Teams & Results



Team	Task
Addax	1
Bangor University	1
DRU	1,2,3
mucAI	1
muNERa	1,2

Participating Systems

Subtask 1 and Subtask 2, all teams employed the **transfer learning approach**, utilizing pre-trained models trained on diverse data sources.

For Subtask 3, **LLMs with in-context learning** techniques were utilized.

Shared Task Teams & Results

Rank	Team	Precision	Recall	F1-score
1	mucAI	91	90	91
2	muNERa	91	89	90
2	Addax	89	91	90
	Baseline-I(ARBERTv2)	89	90	89
3	DRU – Arab Center	86	86	87
4	Bangor	88	85	86

Results of Subtask 1- Flat fine-Grained NER

Rank	Team	Precision	Recall	F1-score
	Baseline-I(ARBERTv2)	92	93	92
2	muNERa	92	90	91
3	DRU – Arab Center	90	90	90

Results of Subtask 2- Nested fine-Grained NER

Rank	Team	Precision	Recall	F1-score
1	DRU – Arab Center	71.9	75.6	73.7

Results of Subtask 3 – Gaza-FlatNER

Open Challenges

Dialects and domains are not adequately addressed in NER systems for Arabic.

Thank You

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