Annotation Guidelines for Reichsanzeiger-NLP (NER and NEL tasks)

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Introduction

These guidelines are aimed to support manual annotation of the Reichsanzeiger newspapers for NER & NEL tasks.

Application context. Our ultimate goal is to recognize and link the named entities from the historical newspaper Reichsanzeiger. It's roughly 500 thousands pages for years 1819-1945.

The main language of the newspapers is German. The tiny parts are written in French, English, Spanish, Latin and Portuguese.

Methodology. These guidelines are created iteratively via: * Adapting the existing annotation guidelines [1-4] on historical German texts for NER/NEL tasks (mainly [1] based on the annotation guidelines for French texts [5]), * Analysing the sample pages from the Reichsanzeiger.

General instructions

Manual annotators shall use only subtypes and components. The only exception is the type EVENT: the events should be annotated as EVENT.

Entity types and subtypes

The types and their subtypes categorize a named entity. This is the first level of annotation referring to a general segmentation of words into major categories [6]. The taxonomy follows mainly [1] and [5], which are consistent except of the EVENT type (see the Source-column).

Туре	Subtypes	The entity refers to	Source
PER	PER.ind	an individual (a proper name should be a part of the entity)	p.21 [5]; p.9 [1]
	PER.coll	more than one individual (a proper name should be a part of the entity)	p.21 [5]; p.9 [1]
ORG	ORG.adm	an organisation which plays a mainly administrative role	p.31 [5]; p.15 [1]
	ORG.ent	an organisation which doesn't play a mainly administrative role	p.29 [5]; p.14 [1]

Туре	Subtypes	The entity refers to	Source
LOC	LOC.adm	a territory with a geopolitical border (e.g., cities, city districts, countries & continents)	p.32 [5]; p.15 [1]
	LOC.phys	a physical location (e.g., mountains, rivers & planets)	p.34 [5]; p.17 [1]
	LOC.oro	an oronym (e.g., are streets, squares, roads & highways)	p.35 [5]; p.18 [1]
	LOC.fac	named buildings (train station & museum), named constructions (gates & bridges) & their extensions (stadium & campus); a physical location of an organisation	p.36 [5]; p.19 [1]
	LOC.add	physical & electronic addresses	p.37 [5]; p.20 [1]
PROD	PROD.media	media production (e.g., newspapers, magazines & sales catalogues)	p.41 [5]; p.22 [1]
TIME	TIME.date.abs	an absolute date (specific date, not a relative date; the dates containing only a day and a month, a month and a year, only a year or only a century)	p.57 [5]; p.23 [1]
	TIME.range	a time interval between two absolute dates	-
EVENT	EVENT	an event	p.63 [5]

Components

Components categorize the elements inside a named entity. This is the second level of annotation helping to determine the named entity type and to set the named entity

boundaries [6]. The components can never be used outside the scope of a type or subtype element [6]. A named entity can consist of one or more components as well as the parts without components. The components of the type PERSON are:

Component	Description
COMP.name	first, middle and last names as well as nickname and initials of a person
COMP.title	title or designator of a person
COMP.func	a function or job of a named person
COMP.qualifier	specifies a person in the form of a qualifying adjective
COMP.demonym	the geographical origin of a person

Annotators shall annotate components only for named entities of type person.

Nested entities and special constructions

Nested entities. A nested entity is an entity nested in another entity or in entity component. There are no limits on nesting levels during annotation.

Components of nested entities. In contrast to [1], components of nested entities are also annotated.

Ambiguities

Unsolvable entity type ambiguities. * Despite our efforts to annotate ambiguous entity types (e.g., firms named after individuals as both PER.ind and ORG.adm), we found that consistent resolution was not always feasible.

Metonymy.

• Metonymy was explored as a potential linguistic phenomenon in our analysis, but we ultimately found it to be of limited relevance to the specific entities present in our dataset.

Entities

Person (PER)

Subtypes

- PER.ind: the entity refers to an individual.
- PER.coll: the entity refers to more than one individual. A proper name should be a part of the entity.

Coverage of the type Person

- · Considered as Person:
 - real person (e.g., Karl August von Hardenberg)
 - imaginary characters and characters of literature pieces (e.g., Marthe Schwerdtlein)
 - religious figures (God)
 - titles if they can be distinctively attributed to one person for ex. via date (e.g., Se. Königl. Hoheit der Herzog von Cumberland, Kaiser der Franzosen)
 - firm names that are the name of a person as well
- Not considered as Person: (TO DO: decide on this keeping in mind the entity linking task)
 - expressions without a proper name except expressions containing title and demonym or expressions that can be clearly attributed to one person via time (e.g., Großherzog von Baden, Kaiser der Franzosen)
 - demonyms which do not modify a proper name (e.g., preußischer Staatsbürger)
 - isolated functions not attached to a person name
 - abbreviation of names that are only one letter (e.g., A.)
- Considered as Person.Collective:
 - more than one individual containing a proper name (e.g.,)
 - royal courts (e.g., Kaiserlicher Russischer Hofstaat)
 - firms with several partners (e.g.,
- Not considered as Person.Collective:
 - citizens or residents of certain geographic areas (e.g., Herren H.F. Fetschow & Sohn)
 - Löwenberger, Plagwitzer, die letzten Franzoſen)
 - families if it is not clear which family members are included
 - members of an institution that frequently change (e.g., Reichstagsabgeordnete)
 - if something is both PER.coll and ORG.ent both entities are added

specific heuristics for Person

 Quartett + name (music) is annotated PER.coll (e.g.,Schwedisches National Damen Doppel Quartett)

Person Components

- COMP.func (a function or job of a named person):
 - an occupation, profession or specialty (e.g., Zimmermann, Richter)
 - an administrative function in public or private area (e.g., Vorsitzender, Außenminister)
 - titles of advising officials (Wirklicher Geheimer Rat, Landrat, Landrath a. D.)
 - social roles and status (e.g., Häftling)
 - tasks (command, directorate) that describe the function of a specific person (e.g., Führung der 29. Kav. Brig., Höchstkommandirenden des X. Armee Corps, Direktion, Regie: Emil Hahn)

- roles (for ex. Pastor (both military and civilian), Archimandriten) within the church
- family relations (e.g., Gemahlin / Ehefrau von ..., siblings)
- certain adjectives: ehemalig / früher / emeritiert/ ausgeschiedener/ geschäftsleitend/ verw. (abbreviation for verwitwet = widowed)
- a function always includes the organization, place or specialization attached to it [1]
- COMP.title (title or designator of a person):
 - a civil or honorific prefix (e.g., Frau, Herr, Damen, Herren, Dlle. (demoiselle)
 Dr., Majestät, königliche Hoheit), military titles (e.g., General, Leutnant), nobility titles and royal titles (Fürstin, Gräfin, Herzog, Ritter, Junker)
 - specifications of doctorates (e.g., Dr. jur., Dr. rer. nat.)
 - titles that a
 - re both civil and military titles (e.g., Kapitän)
 - certain adjectives if a title follows are added to COMP.tilte: ehemalig, früher, emeritiert, ausgeschiedener, Abbreviation "a. D."
 - Functions (Wehrmann, Reservisten, Arbeitssoldat II. Klasse, Einjährig-Freiwilliger) within the military that are not titles are annotated
- COMP.qualifier (specifies a person in the form of a qualifying adjective):
 - any adjective qualifying the entity (e.g., sozialistische, senior, III., verantwortlich, verstorben)
- COMP.name (first, middle and last names as well as nickname and initials of a person):
 - covers first-, middle-, last- and nickname (e.g., Karl)
 - names of noble families if the name is not related to a location (e.g., von Humboldt)
- COMP.demonym (the geographical origin of a person):
 - a noun or adjective that identifies residents of a particular place (e.g., Bayerische)
 - a preposition that identifies the origin of a person (in, aus, zu not in)
 - names of noble families if the name is related to a location (e.g., von Solms-Lych)
 - if locations are separable, they are annotated individually: see example
 - if two locations are not separable, they are annotated together (e.g., Rahm≠Reg.≠Bez. Düffeldorf) #### specific heuristics for Person Components
- COMP.func: both civilian and military doctors are annotated as COMP.func

Tricky cases for Person Prinzen Karl, Louis, und Ferdinand zu SolmsøLych

```
<PER.coll>
      <COMP.title> Herren </COMP.title>
      <ORG.ent>
        <PER.ind>H.F. Fetschow </PER.ind>& Sohn
      </ORG.ent>
</PER.coll>
The expressions containing title and demonym are annotated:
Großherzog von Baden
<PER.ind>
    <COMP.title>Großherzog></COMP.title>
    <COMP.demonym>von Baden</COMP.demonym>
</PER.ind>
Se. Köngl. Hoheit der Herzog von Cumberland
<PER.ind>
    <COMP.title>Se. Köngl. Hoheit</COMP.title>
    <COMP.title>Herzog</COMP.title>
    <COMP.demonym>von Cumberland</COMP.demonym>
</PER.ind>
Königl. Preußische Lieutentant im Garde-Uhlanen-Regimente, Graf Ratibor von
Werßowitz zu Potsdam
<PER.ind>
    <COMP.title>Königl. Preußische Lieutentant im
        <ORG.ent>Garde-Uhlanen-Regimente </ORG.ent>
    </COMP.title>
    <COMP.title>Graf</COMP.title>
    <COMP.name>Ratibor</COMP.name>
    <COMP.demonym>von Werßowitz</COMP.demonym>
   <COMP.demonym>zu Potsdam</COMP.demonym>
</PER.ind>
ehemalige Gouverneur von Catalonien, Graf Espagne
<PER.ind>
    <COMP.qualifier>ehemalige</COMP.qulifier>
    <COMP.func>Gouverneur</COMP.func>
    <COMP.demonym>von Catalonien</COMP.demonym>
    <COMP.title>Graf</COMP.title>
    <COMP.name>Espagne</COMP.name>
</PER.ind>
Sr. hochfürstlichen Durchl. des Prinzen Friedrich, Sohnes Sr. Hoheit des Kurprinzen.
<PER.ind>
```

```
<COMP.title>Sr. hochfürſtlichen Durchl.</COMP.title>
    <COMP.title>Prinzen</COMP.title>
    <COMP.name>Friedrich</COMP.name>,
    <COMP.func>Sohnes
         <PER.ind>
              <COMP.title>Sr. Hoheit</COMP.title>
               <COMP.title>Kurprinzen </COMP.title>
          </PER.ind>
   </COMP.func>
</PER.ind>
Kaiferlich Oesterreichsche Kabinets-Kourier Vardioro.
<PER.ind>
    <COMP.title>Kaiferlich></COMP.title>
    <COMP.demonym>0efterreichfche</COMP.demonym>
    <COMP.func>Kabinets & Kourier </COMP.func>
    <COMP.name>Vardioro</COMP.name>
</PER.ind>
Prinzeßinen Töchtern, Amalie und Maria.
<PER.coll>
    <COMP.title>PrinzeGinen</COMP.title>
    Töchtern,
    <COMP.name>Amalie</COMP.name>
    <COMP.name>Maria</COMP.name>
</PER.coll>
Kommandeurs des Ordens des Heiligen Geiftes den Kardinal de la Luzerne, den Kar-
dinal de Bausset, den Erzbischof von Bordeaux und den Abbe Montesquiou.
<PER.coll>
    <COMP.func>Kommandeurs des
        <ORG.ent>Ordens des Heiligen Geiſtes</ORG.ent>
    </COMP.func>
    den
    <PER.ind>
        <COMP.func>Kardinal</COMP.func>
        <COMP.demonym>Luzerne</COMP.demonym>
    </PER.ind>,
    den
    <PER.ind>
        <COMP.func>Kardinal</COMP.func>
        <COMP.name>de Bausset</COMP.name>
    </PER.ind>,
    <PER.ind>
```

```
den
        <COMP.func>Erzbiſchof</COMP.func>
        <COMP.demonym>von Bordeaux</COMP.demonym>
    </PER.ind>
    und
    <PER.ind>
        den
        <COMP.func>Abbe</COMP.func>
        Montesquiou
    </PER.ind>
</PER.coll>
Herzog und die Herzogin von Angouleme
<PER.coll>
        <COMP.title>Herzog</COMP.title>
    und die
        <COMP.title>Herzogin</COMP.title>
    <COMP.name>von Angouleme</COMP.name>
</PER.coll>
Frau von Lepel, geb. v. d. Lanken
<PER.ind> Frau von
     <COMP.name> Lepel </COMP.name>
     , geb. v. d.
     <COMP.name> Lanken </COMP.name>
 </PER.ind>
Staats/Sekretair und Chef/Pråsident der Haupt/Bank Friese
<PER.ind>
         <COMP.func>Staats & Sekretair </COMP.func>
         <COMP.func> Chef*Pråſident der
                 <ORG.adm>Haupt > Bank</ORG.adm>
         </COMP.func>
         <COMP.name> Friefe</COMP.name>
</PER.ind>
Nested entities with components are also annotated:
Se. Exc. der GeneraløLieutenant, diesseitiger außerordentlicher Gesandter und bevoll-
måchtigter Minister am Rußisch Kaiserlichen Hofe Freiherr von Schöler.
<PER.ind>
    <COMP.title>Se. Exc. der General ¿Lieutenant </COMP.title>,
    <COMP.func>dies[eitiger außerordentlicher Ge[andter</COMP.func>
    und
    <COMP.func>bevollmåchtigter Miniſter am
       <PER.coll>Rußiſch Kaiſerlichen Hofe</PER.coll>
    </COMP.func>
```

```
<COMP.title>Freiherr</COMP.title>
    <COMP.name>von Schöler</COMP.name>
</PER.ind>
Britische General Konsul in Tripolis, Herr Warrington
<PER.ind>
     <COMP.func>
     <COMP.demonym>Britifche</COMP.demonym>
      General Konful in
     <LOC.adm>Tripolis</LOC.adm>
     </COMP.func>
     ,Herr
     <COMP.name>Warrington</COMP.name>
</PER.ind>
Nange sdorf, Sec. Lt. von demſ. Regt.
<PER.ind>
 <COMP.name>Nange sdorf</COMP.name>,
<COMP.title>Sec. Lt.</COMP.title>
von demſ. Regt.
</PER.ind>
Professor der Theologie an der Universität Würzburg, Dr. Stein
<PER.ind>
   <COMP.title>Professor der Theologie an der Universität Würzburg </COMP.title>,
   <COMP.title>Dr.</COMP.title>
   <COMP.name>Stein </COMP.name>
</PER.ind>
Gemahlin des Geheimen Kommerzien-Raths Henschel zu Kassel
<PER.ind>
     <COMP.func>Gemahlin</COMP.func>
     des
     <PER.ind>
         <COMP.func>Geheimen Kommerzien-Raths</COMP.func>
         <COMP.name>Henschel</COMP.name>
         <COMP.demonym>zu Kassel</COMP.demonym>
     </PER.ind>
</PER.ind>
verehelichte Klempnermeister Jasch, Louise, geborne Berger, zu Nieder-Hermsdorf
   <COMP.func>verehelichte
       <PER.ind>
           <COMP.func>Klempnermeister</COMP.func>
           <COMP.name>Jasch</COMP.name>
        </PER.ind>
    </COMP.func>,
```

```
<COMP.name>Louise</COMP.name>,
    geborne <COMP.name>Berger</COMP.name>,
   <COMP.demonym>zu Nieder-Hermsdorf</COMP.demonym>
</PER.ind>
könglich schwedischer Major Nyguist im Generalstabe
<PER.ind>
     <COMP.title>könglich schwedischer Major </COMP.title>
     <COMP.name> Nyguist <COMP.name>
</PER.ind>
im Generalstabe
-> if Generalstabe were after title it would have been included in title
Geschwister Laura, Amalie und Gisela Neumann
<PER.coll>
     <COMP.func>Ge(chwi(ter</COMP.func>
     <PER.ind>Laura</PER.ind>,
     <PER.ind>Amalie</PER.ind>
     <PER.ind> Gifela</PER.ind>
     <COMP.name> Neumann</COMP.name>
</PER.coll>
Oberförster Joly zu Rahm bei Großenbaum, Reg. Bez. Düsseldorf
<PER.ind>
    <COMP.func>Oberför(ter</COMP.func>
    <COMP.name>Joly</COMP.name>
    <COMP.demonym>zu Rahm</COMP.demonym>
</PER.ind>
bei
<LOC.adm>Großenbaum/LOC.adm>,
<LOC.adm>Req.sBez. Düffeldorf/LOC.adm>
Kaufleute G. Rosenthal
<PER.coll>
    <COMP.func> Kaufleute </COMP.func>
    <ORG.ent><PER.ind> G. Rosenthal </PER.ind> & Co.</ORG.ent>
</PER.coll>
Gebr. Jückstock
<PER.coll>
   Gebr.
   <COMP.name>Jückstock</COMP.name>
</PER.coll>
Firma J. Tischer Nachfolger (Gebr. Gerich)
```

```
<ORG.ent>Firma
      <PER.ind>J. Tifcher</PER.ind>
</ORG.ent> Nachfolger
(<PER.coll>Gebr. Gerich</PER.coll>)
Herren H.F. Fetschow & Sohn
<PER.coll>
        <COMP.title> Herren </COMP.title>
        <ORG.ent>
             <PER.ind>H.F. Fetschow </PER.ind>
       & Sohn</ORG.ent>
</PER.coll>
Russischer Hof
<PER.coll>Russisch Kaiserlicher Hof </PER.coll>
How to choose between COMP.demonym and LOC.adm?
questions for person (will be revised by lillian) Page 13 in [1].
How to treat the following cases? * surnames with "von" and a city * surnames with
"Abbe" and a city * etc
How do we choose between these cases? * a person contains COMP.func with
LOC.adm inside
<PER.ind>
    <COMP.func>Abbe
         <LOC.adm>Montesquiou</LOC.adm>
    </COMP.func>
</PER.ind>
   • a person contains COMP.func with COMP.demonym inside:
<PER.ind>
    <COMP.func>Abbe
         <COMP.demonym>Montesquiou</COMP.demonym>
    </COMP.func>
</PER.ind>

    a person contains COMP.func only

<PER.ind>
    <COMP.func>Abbe Montesquiou</COMP.func>
</PER.ind>
   • a person contains COMP.func and COMP.demonym
<PER.ind>
    <COMP.func>Abbe</COMP.func>
    <COMP.demonym>Montesquiou</COMP.demonym>
</PER.ind>
```

• a person contains COMP.func and LOC.adm

Organization (ORG)

Subtypes

- ORG.adm: an organisation which plays a mainly administrative role.
- ORG.ent: an organisation which doesn't play a mainly administrative role

Coverage of the type Organization

- Considered as Organization:
 - registered organizations
 - museums, institutes, universities, libraries (annotate as ORG.ent)
 - restaraunts (annotate as ORG.ent)
 - military units (annotate as ORG.ent)
 - political parties (annotate as ORG.ent)
 - firms (annotate as ORG.ent)
 - hospitals (annotate as ORG.ent)
 - factories (annotated as ORG.ent, e.g., vereinigten rheinisch-westfälische Pulverfabriken, Confolidirtes Braunkohlen»Bergwerk Marie bei Atzendorf)
 - railways (annotated as ORG.ent, e.g., Kerkerbachbahn)
 - press agencies (annotate as ORG.ent, e.g., W.T.B.)
 - exchanges (annotate as ORG.ent but not linked, e.g., Berliner Börse)
 - chamber of commerce (annotate as ORG.ent)
 - armies of a country (annotate as ORG.ent, e.g., Preußische Armee)
 - if something is both PER.coll and ORG.ent both entities are added
 - parliaments (annotate as ORG.adm, e.g., Reichstag, Unterhaus)
 - governments if it is known what they govern (annotated as ORG.adm, e.g., französische Regierung, Regierung von Köln)

- ministeries (annotated as ORG.adm)
- military authorities (Militärbehörde) (annotate as ORG.adm)
- courts of justice (annotate as ORG.adm)
- public prosecution service (Staatsanwaltschaft) (annotate as ORG.adm)
- central banks (Zentralbank, Reichsbank) (annotate as ORG.adm)
- departments if the organization to which they belong is known (e.g., Militär-Medizinal-Abtheilung des Kriegsministeriums)
- former names of an organization are added (vorm.)
- organisations that are distinctive (exist only once) are annotated without the location
- a location is added to the annotation if it is part of the name (for ex. Königlichen EiſenbahnøDirektion Berlin)
- Not considered as Organization:
 - theaters (annotate it as LOC.fac)
 - departments if the organization to which they belong is unknown (e.g., Abtheilung des Innern)
 - governments if it is unknown what they govern (annotated as ORG.adm, e.g., Kaiserliche Regierung, Regierung in/zu Cöln)

specific heuristics

- Bundesrat, Bern are seperately annotated
- Königliche Regierungs-Hauptkasse, Königlichen Staatsschulden-Tilgungskasse etc. (annotate as ORG.adm)
- banks that are named after a person (anntoate as ORG.ent & PER.ind or PER.coll)
- Reserve (milit.) (annotate as ORG.ent)
- other organisations: Police, roman church, schools, international committees, orphanages are annotated as well
- mail system:
- Postanstalten, Postämter are annotated as ORG.ent if they are specific (e.g., General-Postamt/ Reichspostamt)
- Postverwaltung is annotated as ORG.adm
- · Post is annotated as ORG.ent
- Not considered as Organization:
 - Köngl. Preußische Lotterie not annotated
 - Regierung in/zu Cöln not annotated

Tricky cases for Organization Blücherschen Heere

```
</ORG.ent>
</PER.coll>
Pariser Bijoutier Odiot
<ORG.ent>
     Pariser
     Bijoutier
     <PER.ind>Odiot</PER.ind>
 </ORG.ent>
PER.ind not annotated
Niederländische Regierung
<ORG.adm>niederländische Regierung</ORG.adm>
Justizkommission des Reichstages
<ORG.adm>Justizkommission des Reichstages</ORG.adm>
Militär-Medizinal-Abtheilung des Kriegsministeriums
<ORG.adm> Militär-Medizinal-Abtheilung des
       <ORG.adm> Kriegsministeriums </ORG.adm>
</ORG.adm>
Königliches Handelsgericht-Sekretariat
<ORG.adm>Königliches Handelsgericht-Sekretariat</ORG.adm>
Firma: Philipp Cullmann
<ORG.ent> Firma:
   <PER.ind> Philipp Cullmann </PER.ind>
</ORG.ent>
Lehranstalt der Jesuiten in Sikawei
<ORG.ent>Lehranftalt der Jefuiten in Sikawei</ORG.ent>
Hôtel Zulaſt in Mülheim a. d. Ruhr
<ORG.ent>Hôtel Zulaſt</ORG.ent> in Mülheim a. d. Ruhr
Firma J. Tilcher Nachfolger Gebr. Gerich
 <ORG.ent>Firma
     <PER.ind>J. Tifcher</PER.ind>
</ORG.ent> Nachfolger
(<PER.coll>Gebr. Gerich</PER.coll>)
Actien-Gesellschaft für Eisen-Industrie und Brückenbau vorm. J. C. Harkort
<ORG.ent>Actien-Gesellschaft für Eisen-Industrie und Brückenbau vorm.
     <PER.ind>J. C. Harkort</PER.ind>
</ORG.ent>
```

Location (LOC)

Subtypes

- LOC.adm: a territory with a geopolitical border (e.g., cities, countries & continents)
- LOC.fac: named buildings (train station & museum) & their extensions (stadium & campus); a physical location of an organisation
- LOC.oro: an oronym (e.g., are streets, squares, roads & highways)
- LOC.phys: a physical location (e.g., mountains, rivers & planets)

Coverage of the type Location

- Considered as Location:
- Considered as LOC.adm:
 - ancient cities (e.g. Pompeii)
 - Islands
 - administrative areas of the church (e.g., Diözese)
 - if a state is named with the city (e.g., Königsberg (Ostpr.)) both are annotated individually
 - the discription of the administrative region (e.g., Gemeinde, Kreise) is included in the annotation
 - if a river is named with the city (e.g., Ludwigshafen, Rhein) the river is included in annotation
- considered LOC.fac:
 - specific buildings: military buildings, theaters etc. (e.g., Schloss Mannheim, Theaters, train stations)
 - building that only exist once in a city (e.g., Stadt-Theater in Berlin) are annotated with the following city
 - unspecific buildings (e.g., Haus)
- · considered LOC.phys:
 - Gardens and (national)parcs (e.g. Jardin des Tuileries)
 - specific river banks (e.g. rechtes Rhein Ufer)
 - valleys (e.g., Moselthal)
- Not considered as LOC.adm:
 - regions without clear borders (e.g., Ostafrika, Ostindien)
 - if a location is written as an adjective (e.g., Spanisch)
 - colonies that can not be attributed to a specific geographical location (e.g., Spanischen Kolonieen)
- Not considered as LOC.add:
 - street names without a house number
- Not considered as LOC.fac:
 - ports
- Specifications (e.g., island, colony etc.) of locations are annotated as well
- In case of locations that can't be clealy attributed to a city or another location because they are both a city and a location with the same name exist (for example: Samos -> is both city and island) no QID is assigned
- if two locations are separable, they are annotated individually

• if two locations are not separable, they are annotated together (e.g., Rahm*Reg.*Bez. Düffeldorf)

specific heuristics

- Ireland, when alone: https://www.wikidata.org/wiki/Q22890
- Great Britain and Ireland, together (1801-1927): https://www.wikidata.org/wiki/Q174193
- Great Britain, when alone: https://www.wikidata.org/wiki/Q23666
- Berl n / Leipz g to Berlin / Leipzig
- Rio is not annotated as Rio de Janerio
- · Gefängnis is not annotated
- LOC.fac: Embassies are annotated if it is clear where they are and in which country they originate
- LOC.fac: Stadt-Theater in city x are annotated with the following city, Stadt-Theater without a city are annotated alone, same procedure with Church in city x and branches of banks (e.g., Reichsbankstelle in...)
- Yellowstone / Big Horn: LOC.phys without identifier
- West indies is a Danish Colony in the Caribbean: annotated
- · Westaustralien is a state in Australia: annotated
- Windsor is annotated as LOC.adm
- El Salvador is annotated as LOC.adm
- Vereinigte Staaten von Nordamerika, Etats Unis (franz. Name) is annotated as USA
- Vereinigte Staaten are not annoted
- Goldküste is annotated as LOC.adm
- Rio is not annotated as Rio de Janerio

Tricky cases for Location Kolonie Bourbon

```
<LOC.adm>Kolonie Bourbon
```

Königsberg

<LOC.adm>Königsberg</LOC.adm>

Königsberg in Pr.

<LOC.adm>Königsberg in Pr.</LOC.adm>

Berlin Breitestaße No 20

<loc.adm> Berlin </loc.adm>

<loc.add> Breitestaße No 20 </loc.add>

Garnison Mühlberg

<LOC.fac> Garnison Mühlberg</LOC.fac>

EVENT

- Schlacht an der Katzbach: specific (specific in space and time)
- 2. Kongress der russischen Ärzte: specific

• Geburt des jungen Prinzen: not specific

DATE

- Ein u. Zwanzigsten März 1836 -> annotated
- 21ster d. Mts -> not specific -> not annotated
- Ende Dezember 1831: not specific -> not annotated
- Dezember 1831: specific -> annotated
- 1876/77: only 1876 -> annotated/ identifier added
- 1. Juli 1837 bis Ende Dezember 1838: annotated as TIME.range and TIME.date.abs is added to individual dates

specific heuristics

• Michaelis d. J. -> 29. September

Tricky cases for DATE

PROD.media

names Preußischer Staatsanzeiger: https://www.wikidata.org/wiki/Q55257346

Ther are multiple names for the Reichanzeiger newspapaer (https://digi.bib.uni-mannheim.de/periodika/reichsanzeiger/).

specific heuristics

• Bundes-Gesetzblatt is annotated as PROD.media

Entity linking

- entities are linked against Wikidata
- nested entities are linked unless the main entity is PER.ind
- All types of entities except for components and TIME.range are linked
- LOC.adm: only linked to address if a Wikipedia article with the exact name of the address exists (in our dataset no such Wikipedia articles existed)
- If the historical referent differs from the current referent (e.g., Reichsgaue Sudetenland) the historical Wikidata entry is linked. If there is no historical referent, the current Wikidata entry is linked.

- different iterations of the same organisation (e.g., the Reichstag) are not linked to the specific iteration (e.g., 10. Reichstag) but the general wikidata entry (Reichstag Wikidata)
- abbreviations are linked as well if they can be clearly attributed (e.g., SS)
- in case of a metonymy of PER.coll, PER.ind and ORG.ent (e.g., Firma Gebrüder F. J. Badart -> both ORG.ent and PER.coll) the entities are not linked because distinction is too difficult
- parties with generic names (e.g., liberale Partei) are not linked
- if a LOC.adm is both city and district we use the identifier of the city unless it is known that the district is meant
- for lists of administrative areas (e.g., Regierungsbezirken Arnsberg, Düsseldorf, Potsdam, Hamburg) the identifier of the administrative area in the beginning (e.g., Regierungsbezirk) is used

specific heuristics

- argentinische Republik is linked
- Senegambien linked as British Senegambien
- Puerto Rico is not linked
- Tokio before 1889 is not linked
- · Tokio after 1889 is linked as Tokio Wikidata
- · Römisches Reich is linked as Ancient Rome Wikidata
- · Malta is linked as Island of Malta Wikidata
- Württemberg from 1806 to 1918: Kingdom of Württemberg Wikidata
- Nordamerika -> Kontinent is linked as Nordamerika Wikidata
- Goldküste is annotated because its a LOC.adm but no identifier because its not clear which LOC.adm is meant
- Cordoba is not linked

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