

Type-Restricted Event & Relation

Annotation Guidelines

V1.0

Linguistic Data Consortium
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0.0 Change log for these guidelines

- V1.0 is the first version of these guidelines to be distributed

1.0 Introduction to the AIDA Project

Active Interpretation of Disparate Alternatives (AIDA) is a project that focuses on multiple accounts of current events in multi-media data (including text, image, video, and mixed media). The data and also the categories that we annotate will be relevant to specific topics within an overarching scenario, and will involve several languages.

The first overarching scenario for the project was the area of Ukraine-Russia Relations 2014-2015. The languages for that scenario were Ukrainian, Russian, and English. The second overarching scenario is Crisis in Venezuela: 2010 to Present, and the languages for that scenario are Spanish, English, and Russian. The principles of annotation are the same for each scenario.

1.1 Terminology for the Project

Argument: An argument is a crucial piece of information about an event or relation, such as the target of an attack event or a member of a relation. Arguments in this task are typically entities/fillers. Some relation and event types can accept an event as an argument.

Bounding Box: A box which is used to mark the provenance of a mention in a visual document element, i.e. an image or a video.

Document: For this task, we will refer to the whole webpage as it appears in the annotation tool, with all of its associated content, as the document. The “live web” version of the document is the actual webpage, out in the wild on the web and not in the annotation tool (there will be a link in the annotation kit to the live web version).

Document Element: For this task, we will refer to each type of media in a document as a document element. For example, the text document element contains all of the text in the document, and it is separate from any of the other document elements. Each image is its own document element, and each video is its own document element.

Entity/Filler: An entity is something that exists in the real world, such as a person, weapon or organization. A filler is a type of additional information that can provide useful information about an entity, relation or event, such as a numerical value or a side. For the purposes of this task, entities and fillers are typically treated the same, and so their category is referred to as “entity/filler.”

Event: Something that happens in the real world in a particular place at a particular time.

Keyframe: An image created by combining a length of video into a static image. Keyframes will be used to annotate entity/filler mentions within a video.

Mention: A specific occurrence of an entity/filler, relation, or event in a document element.

Mention Level: For entity/filler mentions in text, one of three categories that describes the mention's linguistic properties. For this task, it is whether an entity is referred to with a proper name, a common noun, or a pronoun.

Ontology: The ontology for this task is the list of types, subtypes, and sub-subtypes that we will use to categorize events, relations, and their arguments. The full ontology for this task can be found in the document AIDA Annotation Ontology Guidelines: Phase 2.

Provenance: Provenance is the indication in a document that you have a mention there. Text provenance is the extent of a text mention. For events and relations in text, the provenance is the shortest possible extent, or the “trigger” for the event/relation. Image provenance is a bounding box. Video provenance is start and end timestamps for the event or relation, and bounding boxes for entities/fillers.

Query: A question about specific information in a topic to which the documents in the annotation corpus might contain conflicting answers.

Relation: A relationship that exists between two entities/fillers, for instance a country and a citizen of that country are said to have a NationalityCitizen relation. Some relations in this task may be a relationship between an entity and an event.

Salience: Salience is relevance to the topics we are annotating, and it is how we define taggability. We define “salient” as relevant to a query about the topic or important to an understanding of the topic. Usually, salient events and relations are crucial to understanding the topic as a whole. Additional topic-relevant information about any argument in a salient event/relation is also salient for annotation.

Tagging, Labeling, Annotating: Performing the annotation of a mention.

Topic Model: Think of the topic model as a mini-Wikipedia (a mini- Knowledge Base, or KB) for each topic. A topic model consists of basic information about the topic and queries within the topic.

Trigger: A trigger is the indication in the document that you have a mention of an event or relation in the text document element. In text, the trigger is the shortest possible text extent which indicates the kind of event or relation mentioned. In a visual document element, the trigger is wherever an annotator can see an event or relation occurring.

2.0 Type-Restricted Event & Relation Annotation

2.1 Document Sources

In Type-Restricted Event & Relation Annotation, you're working from previously-selected sections of text, images, and video segments that have been chosen because they contain specific types of events and relations. Instead of seeing a full document, you might see a two-paragraph chunk of text from one document, with an additional paragraph from later in the document, followed by 2 of the 10 images and a short selection of the original video, presented as a number of image slides, or keyframes. That's because this data was selected in a previous task, Salience Auditing, in which annotators combed through articles on topics within the scenario and selected only the most salient details. Those salient selections have become the kits you'll work on now.

2.2 Type-Restricted Event & Relation Annotation

Annotation will be restricted by type in this task. We have selected certain event and relation types for each kit, and you will annotate only those types of events and relations in the kit, and will do so exhaustively. For instance, one kit may ask that you only annotate Conflict.Attack.SetFire events, Movement.TransportPerson.Hide events, and OrganizationAffiliation.Leadership.Government relations. So while you read through the article text and look through the images and video keyframes, you will only need to annotate mentions of those 2 events and that 1 relation. Because this annotation will also be exhaustive, you'll have to annotate every mention of those event and relation types.

3.0 Event Annotation Basics

First, let's look at the common terms and concepts that we'll come across in event annotation.

3.1 Event

An event is anything real that happens at a certain time and in a certain place. For example, here is a Contact.Discussion.Meet event:

Barack Obama met with the award-winning novelist at the White House last Sunday.

Events can also be identified visually in static images or videos.

3.2 Event Mention

An event mention is a particular instance of an event. For example, some news articles will describe an event, such as a protest demonstration, and then mention it again multiple times in

the writing, show it in images, and sometimes even have video evidence of the event. These are all considered “mentions” of that event. For example, the same Conflict.Demonstrate.MarchProtestPoliticalGathering event is mentioned multiple times in the following paragraph:

Students **took to the streets** this Saturday in New York in reaction to rising tuition prices among community college campuses in the United States. Protesters **began to gather** in the early hours of the morning, and by early afternoon, more than ten thousand demonstrators **had gathered** and were **marching** towards city hall. So far, everything has been peaceful, and **the protests** are expected to remain so.

That same event might be identified in images and videos found within the same article. For example:



In this task, we'll annotate all mentions of an event or relation that falls under one of the restricted types. So if one of your event types for this kit was Conflict.Demonstrate.MarchProtestPoliticalGathering, you would annotate all of the mentions of that event in both the sample passage and image above.

3.3 Event Handles

You must give your annotated event a handle, which is a brief description of the event you're tagging. Every event you tag will get a handle, regardless of whether you're tagging it in text, an image, or a video. Make sure it's clear what type of event you're tagging, and include a couple of the entities involved so you can easily differentiate the event from other events of the same type. For example, if you're tagging a Conflict.Demonstrate.MarchProtestPoliticalGathering

event from the previous section, a good handle might be, “Students protest rising tuition prices in New York.” The event type is clear from this handle alone, and it includes enough additional information to differentiate it from other events of the same type. It’s okay to reuse a handle if you’re tagging multiple mentions of the exact same event, but you’re not required to do so.

3.4 Event Triggers

In text annotation, a trigger is the word or phrase that best identifies the occurrence of an event mention. Text triggers for events will usually consist of one word or a short phrase, often a verb. For example:

- Barack Obama **met** with the award-winning novelist at the White House last Sunday.
 - [met] triggers a Contact.Discussion.Meet event
- The **protests** have so far been peaceful, and are expected to remain so.
 - [protests] triggers a Conflict.Demonstrate.MarchProtestPoliticalGathering event
- The bombing jet fighters **flew** swiftly past the battlefield.
 - [flew] triggers a Movement.TransportPerson.SelfMotion event
- A woman is accused of **setting fire** to one of the city’s police cars.
 - [setting fire] triggers both a Conflict.Attack.SetFire event and an ArtifactExistence.DamageDestroy.Unspecified event
 - Note that a text extent can trigger more than one event, though you would only tag the event to which the kit is restricted.

In images and videos, the event trigger is the part of the image/video that contains the event, usually the whole image for images, and indicated by a starting and ending timestamp for videos. For example:¹



¹ From [Polls open in Venezuela for constituent assembly election](#)

The above illustrates the trigger of an `Inspection.SensoryObserve.InspectPeopleOrganization` event in which the officer on the left inspects the man on the right. The starting timestamp for this event would be [00:00:27], represented in the tool as `27.xyz`, and the ending timestamp would be [00:00:32], which would be `32.xyz` in the tool.²

3.5 Event Type.Subtype.SubSubtype

Events are all given a type, a subtype, and a sub-subtype that indicates how you've categorized them. Because of the nature of this task, the sub-subtypes can be very specific, or can simply be called "unspecified" if the subtype fits, but none of the sub-subtypes do. For instance:

- Barack Obama met with the award-winning novelist at the White House last Sunday.
 - **Contact.Discussion.Meet**
- The protests have so far been peaceful, and are expected to remain so.
 - **Conflict.Demonstrate.MarchProtestPoliticalGathering**
- No one expected the general to assault the colonel.
 - **Conflict.Attack.Unspecified**
 - Note here that, because there is no extra information about the type of attack it was, we will have to call it Unspecified for its sub-subtype.
- A woman is accused of setting fire to one of the city's police cars.
 - **Conflict.Attack.SetFire**
 - **ArtifactExistence.DamageDestroy.Unspecified**

3.6 Event Arguments

Once you've found your event mention, selected a trigger, and chosen the event type.subtype.sub-subtype, it's time to choose the arguments that make up that event. Event arguments are the various pieces that make up an event, or that are involved in an event, such as the place where the event occurred, the person or people who were involved in the event, or the vehicle or weapon or other item used within the event. In certain event types, you can even tag another event as an argument. Be sure to consult the ontology guidelines in the document AIDA Annotation Ontology Guidelines: Phase 2 to make sure the event you're tagging can accept an event as an argument before annotating it as such.

Some events are composed of a lot of arguments, some may only have a few - the allowable amount of arguments for an event changes depending on how the event is mentioned in the document. Some events can even exist because they have a trigger, but have no arguments!

Let's look at the following `Contact.Discussion.Meet` event. There are multiple mentions of `Discussion` events in this passage, but we'll focus on the most informative version for the sake of the example:

² Timestamps in the tool are recorded at much greater specificity than seconds, e.g. 13.776357, which represents 13 seconds plus the fraction of a second represented by .776357. In these guidelines, the formula 'xyz' will stand in for the greater specificity of fractions of seconds.

Today was the day for new hiring at the Omega Corporation, a day marked by introductions and handshakes. First up was interviewee Rajvi, [who] [met] with [Dennis] and [Valeria], VPs of marketing and promotion, at [*the base of the lobby stairs*]. She met with them to discuss open positions in the marketing department. The atmosphere was relaxed and friendly. She felt confident the meeting would go well.

The annotation of this event would look roughly like this:

- **Contact.Discussion.Meet:** met
 - **Participant:** who (Rajvi)
 - **Participant:** Dennis
 - **Participant:** Valeria
 - **Place:** the base of the lobby stairs

For image and video annotation, you would use bounding boxes to denote the different event arguments:



For more on tagging visual mentions of arguments in image or video document elements, see Sections 6.2, 6.3, and 6.4 below.

3.7 Entity Handles

You must also include a handle for each of the event arguments you tag, regardless of whether the mention is coming from text, an image, or a video. If you're tagging an entity and you know the entity's name, that name is usually the best thing to use as the handle. For example, if you're tagging Russian president Vladimir Putin as an argument in an event, the mention you tag might be "President Putin," "the president," "Putin," or even a picture of Vladimir Putin, but the best handle in all of those situations would be "Vladimir Putin." If you don't know the entity's name, then you can briefly describe the entity in the handle. For example, if you tag an unnamed police officer in an image, a good handle might be simply "Police officer." It should always be clear from the handle which entity you're tagging, and you should make an effort to avoid ambiguous handles. For example, something like "Police attacking protesters" would not be a helpful handle since it's unclear whether the entity you're tagging is the police or the protesters.

3.8 Argument Roles & Entity Types

The last step in event annotation is to determine the types and roles for the event arguments. An argument role is the role or function that the argument plays in an event, such as the place (filled by a facility, location, or GPE), or the actor (usually filled by a person, GPE, or organization). Let's take a look at the argument roles for the Contact.Meet.Discussion mentioned above:

Today was the day for new hiring at the Omega Corporation, a day marked by introductions and handshakes. First up was interviewee Rajvi, *[who]* **[met]** with *[Dennis]* and *[Valeria]*, VPs of marketing and promotion, at *[the base of the lobby stairs]*. She met with them to discuss open positions in the marketing department. The atmosphere was relaxed and friendly. She felt confident the meeting would go well.

The annotation of this event for this event would look roughly like this:

- **Contact.Meet.Discussion:** met
 - **Participant:** who (Rajvi)
 - **Participant:** Dennis
 - **Participant:** Valeria
 - **Place:** the base of the lobby stairs

Next, you'll choose an entity type for each entity that fills a role. The entity type, similar to event type, is a string of type.subtype.sub-subtype that defines the entity. Let's look at the entity type.subtype.sub-subtypes for each of the above arguments:

- **Rajvi (Participant):** PER.Unspecified.Unspecified
- **Dennis (Participant):** PER.ProfessionalPosition.Unspecified
- **Valeria (Participant):** PER.ProfessionalPosition.Unspecified
- **The base of the lobby stairs (Place):** FAC.Building.OfficeBuilding

Although we know Dennis and Valeria's positions from the excerpt ("VPs of marketing and promotion"), their sub-subtypes are Unspecified because we don't have a more specific sub-subtype within the PER.ProfessionalPosition type to represent them.

If you tag an event as an argument in another event, the only thing you'll need to do is link the slot to the annotation of the event that is acting as the argument. You won't need to indicate type for that argument.

4.0 Relation Annotation Basics

Now let's look at the common terms and concepts that we'll come across in relation annotation.

4.1 Relation

A relation is similar to an event in how you go about tagging it, but there are some important differences between relations and events. A relation is the connection or relationship between two things. Relations also differ from events in that they must have exactly two arguments, i.e. the two things which are related. For example, here's a relation between a person and his job title, a PersonalSocial.Role.ProfessionalRole relation:

Venezuela's current Minister of Defense, Vladimir Padrino López

Relations can also be identified visually in static images or in videos. For example, this image shows a Physical.LocatedNear.Unspecified relation between the police officers and the Maidan square:



Be aware that relations are often difficult to represent visually. You should still try to identify and tag the restricted relations in every section of the document, but don't be surprised if you don't find many of them shown in images or videos. Relations are much more common in text document elements because they're much easier to talk about in a written format.

4.2 Relation Mention

A relation mention is a particular instance of a relation. For example, some news articles will describe a relation, such as an affiliation relation, and then mention it again multiple times in the writing, show it in images, and will sometimes even have video evidence of the relation. These are all considered "mentions" of that relation. For example, the same OrganizationAffiliation.EmploymentMembership.Employment relation is mentioned multiple times in the following paragraph:

Police snipers were on the scene, scattered atop local businesses and apartment buildings. Police have feared the local demonstrations could turn violent based on recent events, and **police snipers** are becoming a common occurrence at these rallies.

That same relation might be identified in images and videos found within the same article. In this task, since we're annotating exhaustively, we'll annotate all mentions of a relation that falls under one of the restricted types. So if one of your relation types for this kit was OrganizationAffiliation.EmploymentMembership.Employment, you would annotate each of the above mentions.

4.3 Relation Handles

You must give your annotated relation a handle, which is a brief description of the relation you're tagging. Every relation you tag will get a handle, regardless of whether you're tagging it in text, an image, or a video. Make sure it's clear what type of relation you're tagging, and include the entities involved so you can easily differentiate the relation from other relations of the same type. For example, if you're tagging an OrganizationAffiliation.EmploymentMembership.Employment relation from the previous section, a good handle might be, "Snipers are employed by the police." From this handle alone, the relation type is clear, and you know the Employee and PlaceOfEmployment arguments for that relation from the handle alone. That way, you can quickly differentiate that relation from other relations, even ones of the same type. It's okay to reuse the same handle for different mentions of the exact same relation, but you're not required to do so.

4.4 Relation Triggers

Many relation mentions in text will not be expressed with a good trigger/provenance extent. If it doesn't seem like there's a good trigger for a relation in text, use your best judgment and annotate an extent that seems plausible. We do want to annotate all restricted relations that are mentioned, even if there is not a perfect trigger extent! Here are some examples:

- **Dr. Smith** as a PersonalSocial.Role.TitleFormOfAddress relation
 - Annotating a title (or honorific, etc.) is the best option for these and similar cases, so the trigger/provenance extent here would be **Dr.**
- **U.S. troops** as a GeneralAffiliation.MemberOriginReligionEthnicity.NationalityCitizen relation
 - Annotating the adjective **U.S.** is the best option for this case.
- **Venezuela's current Minister of Defense, Vladimir Padrino López** as an OrganizationAffiliation.Leadership.Government relation
 - The possessive is the best trigger/provenance option here, so annotate **Venezuela's**
- **50 people** as a Measurement.Size.Count relation
 - **50** is the best thing to choose as the trigger/provenance here

In images and videos, the relation trigger is the part of the image/video that contains the relation, usually the whole image for images and indicated by a starting and ending timestamp for videos. For example:³

[00:00:18] - Relation mention begins



[00:00:22] - Relation mention ends



The above represents the trigger of an OrganizationAffiliation.Leadership.Government relation, mentioned in the burned-in text at the bottom of the screen ("Oleg Voronov Head of National Centre for Emergencies"). The relation is occurring for the entire time this text appears on

³ From [Russian humanitarian aid convoy arrives in east Ukraine](#)

screen, so the starting timestamp for this relation would be [00:00:18] or 18.xyz, and the ending timestamp would be [00:00:22], or 22.xyz.

4.5 Relation Type.Subtype.SubSubtype

Relations are all given a type, a subtype, and a sub-subtype that indicates how you've categorized them. Because of the nature of this task, the sub-subtypes can be very specific, or can simply be called "unspecified" if the subtype fits, but none of the sub-subtypes do. For instance:

- The ensuing struggle was caused by men wearing yellow armbands.
 - **Information.Color.Color**
- The town was under the control of the rebels.
 - **GeneralAffiliation.ArtifactPoliticalOrganizationReligiousAffiliation.ControlTerritory**
- The locals were suspicious because they knew that Rodriguez was with the opposition party.
 - **OrganizationAffiliation.EmploymentMember.Unspecified**, unspecified since we can't be sure if Rodriguez was employed by or a member of this organization

4.6 Relation Arguments

Once you've found your relation mention, selected a trigger, and chosen the relation type.subtype.sub-subtype, it's time to choose the arguments that make up that relation. All relations must have two arguments -- a relation cannot exist with just one argument, and cannot contain more than two. Relation arguments are the two pieces that are involved in the relation, such as places, people, organizations, or objects. For possession relations, for example, you'd annotate the Owner (usually a person or organization) and the Object that is owned or possessed. For affiliation relations, you might annotate the larger organization that is affiliated to a subset group. Let's look at the following

GeneralAffiliation.ArtifactPoliticalOrganizationReligiousAffiliation.OwnershipPossession relation:

Tensions at the border were high as *[a customs officer]* paraded the length of the queue, *[rifle] [in hand]*.

The annotation of that relation would look roughly like this:

- **GeneralAffiliation.ArtifactPoliticalOrganizationReligiousAffiliation.OwnershipPossession:** in hand
 - **Artifact:** rifle
 - **Owner:** a customs officer

For image and video annotation, you would use bounding boxes to denote the different relation arguments:



For more on tagging visual mentions of arguments in image or video document elements, see Sections 6.2, 6.3, and 6.4 below.

Some relations can also accept events as one of their arguments. For example, let's look at the following text, which contains a Conflict.Attack.FirearmAttack event and a ResponsibilityBlame.AssignBlame.AssignBlame relation (let's also assume that the kit in which this example appears is restricted to these two types):

The **[gun] battle** saw **[three officers]** wounded, and the government's official stance was that **[rebels]** were to **[blame]**.

In this relation, the first argument, EntityResponsible, would be the rebels, and the second argument, Event, or what they were responsible for, would be the Conflict.Attack.FirearmAttack mentioned earlier in the sentence. The annotation would look like this:

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- **Conflict.Attack.FirearmAttack:** gun battle
 - **Attacker:** rebels
 - **Target:** three officers
 - **Instrument:** gun

- **ResponsibilityBlame.AssignBlame.AssignBlame:** blame
 - **EntityResponsible:** rebels
 - **Event:** Event 64

4.7 Entity Handles

You must also include a handle for each of the relation arguments you tag, regardless of whether that mention is coming from text, an image, or a video. If you're tagging an entity and you know the entity's name, that name is usually the best thing to use as the handle. For example, if you're tagging Russian president Vladimir Putin as an argument in a relation, the mention you tag might be "President Putin," "the president," "Putin," or even a picture of Vladimir

Putin, but the best handle in all of those situations would be “Vladimir Putin.” If you don’t know the entity’s name, then you can briefly describe the entity in the handle. For example, if you tag an unnamed police officer in an image, a good handle might be simply “Police officer.” It should always be clear from the handle which entity you’re tagging, and you should make an effort to avoid ambiguous handles. For example, something like “Police attacking protesters” would not be a helpful handle since it’s unclear whether the entity you’re tagging is the police or the protesters.

4.8 Argument Roles & Entity Types

The last step in relation annotation is to determine the types and roles for the relation arguments. An argument role is the role or function that the argument plays in a relation, such as a place (filled by a facility, location, or GPE), or an owner (usually filled by a person, GPE, or organization). Let’s take a look at the argument roles for this **GeneralAffiliation.ArtifactPoliticalOrganizationReligiousAffiliation.OwnershipPossession** relation:

Tensions at the border were high as [*a customs officer*] paraded the length of the queue, [*rifle*] [**in hand**].

The annotation of this relation would look roughly like this:

- **GeneralAffiliation.ArtifactPoliticalOrganizationReligiousAffiliation.OwnershipPossession:** **in hand**
 - **Artifact:** rifle
 - **Owner:** a customs officer

Next, you’ll choose an entity type for each entity that fills a role. The entity type, similar to relation type, is a string of type.subtype.sub-subtype that defines the entity. Let’s look at the entity type.subtype.sub-subtypes for each of the arguments:

- **Rifle (Artifact):** WEA.Gun.Firearm
- **A customs officer (Owner):** PER.Police.Unspecified

You will not assign entity types for events when they are used to fill an argument role.

5.0 Detailed Annotation Information

5.1 Detailed Event Annotation Information

All event mentions in text must have a trigger/provenance, and all arguments of the event mention must be from the same document element. Sometimes event mentions will have only the trigger and only some of the possible arguments, or even no arguments. In other cases, one event mention will have several entities/fillers filling the same role. All of these are valid, and you

should annotate them in the way that represents how the arguments are functioning in the event.

The trigger is the smallest piece of text that tells you what kind of event it is. The argument provenance should be the closest mention of the entity/filler to the trigger you've tagged for the event. For example, for a Conflict.Attack.Unspecified event "Luke Skywalker fought Darth Vader," you would annotate:

- "Luke Skywalker" as the Person in the Attacker role
- "Darth Vader" as the Person in the Target role
- "fought" as the extent of the event mention trigger

When you annotate the arguments of the event mention in a text document element, the closest entity mentions should fill the argument roles for the event mention. This means that, if there is a mention of an argument that is in the same sentence as the event trigger, you should use that entity mention as the argument for that event mention. If the only mention of an argument is not in the same sentence as the trigger, annotate the argument mention that is otherwise closest to the event trigger.

Annotating event arguments in an image is relatively straightforward since images are small, static pieces of media. Simply find a mention of the argument in the image, and indicate its provenance using a bounding box as described in Section 6.2.2 below.

For event mentions that are in video document elements, you should tag the argument mentions that are closest in time to the event trigger you'd tagged. If the argument is mentioned within the timestamps that you've used to tag the provenance of the event, then you should use that entity mention as the argument for that event mention. If the only mention of an argument is not within those timestamps, annotate the argument mentions that is otherwise closest to the event provenance you've tagged.

You should annotate all of the arguments for the event that exist in the document element. It's okay to repeat entity roles if there really are multiple entities playing the same role in the same event. For example, "Jack and Jill fetched the pail" triggers one Movement.TransportArtifact.BringCarryUnload event with two Transporter arguments, not two TransportArtifact events. Sometimes, the doc element will not contain all of the arguments for the event. Don't worry if there are arguments in the event template that are not in the document element -- you just won't be able to annotate anything for those arguments, which is okay if that's how the event is portrayed in the document.

5.1.1 Triggers/Provenance for Event Mentions

When we annotate the trigger/provenance, there is some flexibility in what to choose as the trigger (or "Provenance" as it's called in the tool).

For text mentions, in general, we want to capture succinctly the text extent that lets us know that the event/relation is present in the document. If it's one word, that's even better. Say we had an `Inspection.SensoryObserve.MonitorElection` event (an asterisk is used to indicate that the annotation would be incorrect):

Correct: The observers **[monitoring]** the election found no evidence of election tampering.

Incorrect: The observers ***[monitoring the election]** found no evidence of election tampering.

Incorrect: The observers monitoring the election ***[found no evidence of election tampering]**.

Note that, since this annotation is exhaustive, pronominal mentions of events are valid triggers. For example, both of the following mentions trigger a `Conflict.Attack.SetFire` event.

- John **[burned down]** the house. I wish he hadn't done **[that]**.

For image mentions, the entire image will serve as the event provenance. You don't need to indicate specifically where in the image the event is occurring.

For video mentions, provenance for a mention in the tool requires start and end timestamps:

- First, tag the video as the provenance to indicate that the mention is occurring in that document element, just like you would tag an image document element.
- Choose a starting timestamp that indicates the time that the event mention begins, then an ending timestamp that indicates the end of the continuous span of time that the event mention is present in the video. The start and end times should show one time that you see/hear the event in the video.

For video mentions, the provenance you annotate is the entire time the event is happening, so long as it's visible (and, in some cases, audible -- see Section 6.4 for more on the interaction between sound and image in video document elements). Most video action is expected to be mentioned for only part of the total video time. It seems possible for an event to play unbroken over the whole time span of a video, but unless it's a mention of something like a `SelfDirectedBattle` event or a particular `Contact` event that is completely unbroken, we'd expect the action to be broken up into discrete mentions.

For example, a `FirearmAttack` event mention would likely involve annotating start and end times as provenance for one police officer firing a gun for however long that one person appears on screen while firing a gun.

A sort of special case of a lengthy event mention in a video might be when a mention is in the/text overlay of a news report video (for example, "PROTESTERS SHOT ON MAIDAN"). If your evidence for the mention comes from that text overlay, then your timestamps should reflect the entire time that text is shown, and it's expected the mention will be occurring for much longer than other kinds of video event mentions.

5.1.2 Unusual Event Annotation Situations

The following sections explore situations in which your event annotation will be more complex than the standard procedure of tagging one unique entity per event role.

5.1.2.1 Repeating Entities Within a Single Event

In general, you should avoid tagging the same entity as filling more than one role in the same event. For example, in a Movement.TransportArtifact event, you should not tag a truck as both the vehicle doing the transporting (Vehicle argument) and the thing being transported (Artifact argument). If the truck is carrying other goods, then you would only tag it as the Vehicle argument. If the truck is only carrying people, then it would be the Vehicle argument in a Movement.TransportPerson event. There are some necessary exceptions to this. One situation in which you would need to repeat entities within a single event would be a mention of a suicide, where the agent and victim are necessarily the same entity. If you're tagging the Life.Die.Unspecified in the mention, "The death of the man found in the apartment was ruled a suicide," your annotation would look like this:

- **Life.Die.Unspecified:** death
 - **Killer:** the man found in the apartment
 - **Victim:** the man found in the apartment
 - **Place:** the apartment

5.1.2.2 Mutual Conflict.Attack Events

Sometimes, a mention of a Conflict.Attack is ambiguous, and you're unable to tell who is the Attacker and who is the Target. In these cases, where the attacking seems to be mutual, you should tag two Conflict.Attack events, one version where one of the mentioned entities is the attacker, and then another where the other mentioned entity is the attacker.

A mutual Conflict.Attack event would look something like this:

During the protests, [fighting] broke out between [*the protesting students*] and [*the riot police*].

Since it's unclear who is the Attacker and who is the Target, you would annotate this mention using two separate events as follows:

Event 1

- **Conflict.Attack.Unspecified:** fighting
 - **Attacker:** the protesting students
 - **Target:** the riot police

Event 2

- **Conflict.Attack.Unspecified:** fighting
 - **Attacker:** the riot police

- **Target:** the protesting students

5.2 Detailed Relation Annotation Information

Relations must have both arguments annotated in the same document element. For text mentions, start by annotating a trigger/provenance extent.. The trigger is the smallest piece of text that tells you what kind of Relation it is. For example, for a Physical.LocatedNear.Unspecified relation “Obama was in Washington,” you would annotate:

- “Obama” as the Person who is located somewhere
- “Washington” as the Place where the person is located
- “in” as the text extent of the relation trigger/provenance

The arguments for a relation must always be two different entities or fillers (you cannot annotate the same entity/filler in both argument roles of a relation), or one entity/filler and one event.

The arguments for the relation must always come from the same document element. If the relation is in a text element, both arguments of the relation must be in the same text element. If the relation is in an image, both arguments of the relation must be mentioned in the same image, and the same goes for videos.

5.2.1 Triggers/Provenance for Relation Mentions

Many relation mentions in text will not be expressed with a good trigger/provenance extent. If it doesn't seem like there's a good trigger for a relation in text, use your best judgment and annotate an extent that seems plausible. We do want to annotate exhaustively all relations of the indicated type.subtype.sub-subtype that are mentioned, even if there is not a perfect trigger extent! Here are some examples:

- **Dr. Smith** as a PersonalSocial.Role.TitleFormOfAddress relation
 - A title (or honorific, etc.) is the best option for these and similar cases, so the trigger/provenance extent here would be **Dr.**
- **Russian troops** as a GeneralAffiliation.MORE.NationalityCitizen relation
 - The adjective **Russian** is the best option for this case.
- **Kiev's Maidan Square** as a Physical.LocatedNear.Unspecified relation
 - The possessive is the best trigger/provenance option here, so annotate **Kiev's**
- **50 people** as a Measurement.Size.Count relation
 - **50** is the best thing to choose as the trigger/provenance here

Sometimes a relation is not explicit enough to annotate, and in that case we will not be able to annotate a relation mention. For example, if your document talks about barriers and names “Maidan” elsewhere in the document, but never explicitly says that the barriers are on the Maidan, you will not be able to annotate a LocatedNear relation between the barriers and the Maidan.

Note that, since this annotation is exhaustive, pronominal mentions of relations are valid triggers. For example, both of the following mentions trigger an OrganizationAffiliation.Leadership.Unspecified relation.

- She's the [head] of the company. [That]'s why she makes the big bucks.

5.3 Event and Relation Arguments (Entities and Fillers)

For this task, we will only annotate entities and fillers when they are filling an argument role in an event or relation mention. We will annotate the closest mention of the entity/filler filling the role for each argument of the event/relation -- that is, the entity/filler mention that both fills the argument role and is also closest to the event/relation trigger.

- For text document elements:
 - If there is an argument mention in the same sentence as the event/relation trigger, use that entity mention for the argument.
 - If the argument mention is not in the same sentence, annotate the argument mention that is otherwise closest to the relation trigger.
- For image elements:
 - Annotate the argument mentions within the image using bounding boxes.
 - It is unlikely that there will be multiple mentions of the same entity in one image, so in almost every case, you won't have to worry about choosing an entity mention that is closer to the event or relation trigger than another.
- For video elements:
 - Annotate the argument mentions that are closest to the event/relation trigger mention using bounding boxes in video keyframes.

You can find more information about bounding boxes in Section 6.2 below.

For our purposes, an “annotatable” entity/filler is one that is explicitly mentioned in the text as an event or relation argument, whether its part of speech is noun or adjective, and regardless of its syntactic function. Note that conjugated verbs are not valid entity/filler mentions. For example, “gunned down” does not contain a mention of a WEA.Gun.Firearm filler. Mention extents usually consist of whole words. As a rule, we exclude punctuation characters like commas, periods, and quotation marks from the beginning or end of the mention extent.

5.3.1 Annotating Entities, Fillers, and Mention Levels in Text

An entity or filler will be mentioned in one of the following three ways:

- Name Mention (NAM): Barack Obama
- Nominal Mention (NOM): the incumbent
 - A noun phrase or adjective mention that is not a name
- Pronoun Mention (PRO): he, his

You must indicate the mention level (NAM/NOM/PRO) for all text mentions of seven entity/filler types (person, organization, geopolitical entity, location, facility, weapon, vehicle). You will not choose a mention level for text mentions of any of the other filler types. You will also not choose a mention level for non-text mentions of either entities or fillers. This includes instances of written language appearing in an image or video document element.

5.3.2 Extents for Text Mentions of Entities & Fillers

- **FAC.NAM:** The extent of a FAC (Facility) name is the entire string representing the name, excluding the preceding definite article ('the') and any other modifiers.
 - the [Mall of America]
 - [Champs-Élysées]
- **FAC.NOM:** The extent of a FAC (Facility) nominal mention is the full mention of the noun or noun phrase, including articles and all modifiers.
 - [a monument]
 - [this building]
 - [a few well-known monuments]
- **FAC.PRO:** The extent of a FAC (Facility) pronominal mention is just the single pronoun.
 - it, that, mine, etc.
- **GPE.NAM:** The extent of a GPE (Geopolitical Entity) name is the entire string representing the name, excluding the preceding definite article ('the') and any other modifiers.
 - [Ukraine]
 - [Moscow]
 - the [US]
 - [Bowdon], [Georgia]
- **GPE.NOM:** The extent of a GPE (Geopolitical Entity) nominal mention is the full mention of the noun or noun phrase, including articles and all modifiers.
 - [my country]
 - [this city]
- **GPE.PRO:** The extent of a GPE (Geopolitical Entity) pronominal mention is just the single pronoun.
 - it, that, mine, etc.
- **LOC.NAM:** The extent of a LOC (Location) name is the entire string representing the name, excluding the preceding definite article ('the') and any other modifiers.
 - the [Missouri River]
 - [Mt. Fuji]
- **LOC.NOM:** The extent of a LOC (Location) nominal mention is the full mention of the noun or noun phrase, including articles and all modifiers.
 - [the lake]
 - [the beautiful mountain that he photographed]
- **LOC.PRO:** The extent of a LOC (Location) pronominal mention is just the single pronoun.
 - it, that, mine, etc.
- **ORG.NAM:** The extent of an ORG (Organization) name is the entire string representing the name, excluding the preceding definite article ('the') and any other modifiers.
 - the [University of Pennsylvania]
 - [CIA]
- **ORG.NOM:** The extent of an ORG (Organization) nominal mention is the full mention of

- the noun or noun phrase, including articles and all modifiers.
 - [the university]
 - [another large company whose investors revolted]
- **ORG.PRO:** The extent of an ORG (Organization) pronominal mention is just the single pronoun.
 - it, them, etc.
- **PER.NAM:** The extent of a PER (Person) name is the entire string representing the name, excluding the preceding definite article ('the') and any other modifiers. These are excluded because they are not part of the entity's actual name (e.g. Bill Clinton's name is 'Bill Clinton' not 'former president Bill Clinton').
 - [John]
 - [Bill] and [Hillary Clinton]
 - the incomparable [Steven Spielberg]
- **PER.NOM:** The extent of a nominal PER (Person) mention is the full mention of the noun or noun phrase, including articles and all modifiers.
 - [my sister]
 - [the president of Ford]
- **PER.PRO:** The extent of a pronominal PER (Person) mention is just the single pronoun.
 - me, who, it, themselves, both, all, etc.

5.3.3 Named (NAM) Mentions in Text

A named entity or filler mention (NAM) is a mention that uniquely refers to an entity by its proper name, acronym, nickname, alias, abbreviations, or another alternate name. The extent of a name is the entire string representing the name, excluding any other modifiers. These are excluded because they are not part of the entity's actual name (e.g. Bill Clinton's name is 'Bill Clinton' not 'former president Bill Clinton'). Named entity mentions can be either nouns or adjectives.

Some examples of named entity mentions can be found below:

- [Bob Austin]_{PER}
- [Russian]_{GPE} troops
- former president [George W. Bush]_{PER}
- the [Eiffel Tower]_{FAC}
- [IBM]_{ORG}
- the [Yankees]_{ORG} (sports team)
- [Coca-Cola Bottling Co.]_{ORG}
- [Uganda]_{GPE}
- [Bowdon]_{GPE}, [Georgia]_{GPE}
- [Mt. Fuji]_{LOC}
- the [Kremlin]_{ORG}
- the [Kennedys]_{PER}
- [Bill]_{PER} and [Hillary Clinton]_{PER}
- [Sean "Puffy" Combs]_{PER}, aka [Puff Daddy]_{PER} or [P. Diddy]_{PER}
- the [North]_{GPE} (for 'North Korea')
- the so-called [Northern Cyprus Chess Federation]_{ORG}
- [Land of the Rising Sun]_{GPE} (for 'Japan')
- the famous [Lincoln Memorial]_{LOC}
- the incomparable [Steven Spielberg]_{PER}
- the [US]_{GPE} [State Department]_{ORG}

- the [States]_{GPE} (as a nickname for the US)
- The [Gambia]_{GPE}

Do not include any surrounding material in a named mention extent, even if it does seem relevant to the name you are annotating. We want to grab just the name and nothing else.

Correct: the city of [Philadelphia]_{NAM}

Incorrect: *[the city of Philadelphia]_{NAM}

Correct: the [Eiffel Tower]_{NAM} landmark

Incorrect: the *[Eiffel Tower landmark]_{NAM}

You'll notice in the list above that adjectival mentions of GPEs are considered named mentions of those entities. Demonyms, however, are not considered named mentions of the GPE to which they refer. "The [French]_{GPE} president" is a named mention of France. "The French make great pastries" does not contain a mention of a GPE. "The French" here would be considered a nominal PER mention.

5.3.4 Nominal (NOM) Mentions in Text

A nominal entity or filler mention (NOM) is an entity mention that refers to the entity by a common noun phrase, not including the entity's proper name. The extent of a nominal mention is the full mention of the noun or noun phrase, including modifiers.

NOTE: A good rule for identifying the extent of a nominal mention is that it is the extent of the text that would be replaced by a pronoun, for example:

- [The boy]_{NOM} chased the cat -> [He]_{PRO} chased the cat

Notice we can't just replace the word "boy," as replacing part of the mention extent would not make sense: **The he chased the cat.*

Some examples of nominal mentions are given below:

- [the area affected by the tsunami]_{LOC}
- [half the population]_{PER}
- [yellow buses]_{VEH}
- [a few well-known monuments]_{FAC}
- [some teams]_{ORG}
- [the building]_{FAC}
- [that city]_{GPE}
- [her country]_{GPE}
- [the director of the Oscar winning film *Lincoln*]_{PER}
- [the family]_{PER}
- [another large company whose investors revolted]_{ORG}
- [the presidential hopeful from Chicago]_{PER}

Remember that a nominal extent for an entity needs to be the entire noun phrase with the entity in it. This is often larger than just the bare noun or a smaller noun phrase that also contains the entity. Some noun phrases will contain a very long modifier:

- He saw [the students that he would be teaching]_{PER}.
- [More than 43,000 people who were being treated for diarrhea in Bangladesh]_{PER} would recover fully.

To determine the extent of noun phrases like these, we can use the same pronoun replacement test. The extent should be the full noun phrase that can be replaced by a pronoun, for example:

- He saw [them].
- [They] would recover fully.

Some more common patterns that come up are below:

Articles

- **Correct:** [the snipers]
- **Incorrect:** the *[snipers]

Numbers/numerical expressions:

- **Correct:** [at least 53 victims]
- **Incorrect:** at least 53 *[victims]
- **Incorrect:** at least *[53 victims]

Prepositional phrases:

- **Correct:** [the victims of the shooting]
- **Incorrect:** *[the victims] of the shooting

Relative clauses:

- **Correct:** [people who fled the square]
- **Incorrect:** *[people] who fled the square

Participial relative clauses:

- **Correct:** [the 12 victims found hiding in the building]
- **Incorrect:** *[the 12 victims] found hiding in the building

Finally, annotate an extent that "makes sense" as a nominal mention/noun phrase rather than just a chunk of the sentence:

- **Correct:** [The voters] passed the referendum by a large margin
- **Incorrect:** *[The voters passed the referendum] by a large margin
- **Correct:** [The voters who passed the referendum by a large margin]

Noun Phrases that Contain Subsets

Noun phrases containing subsets are made up of two pieces: **the part** and **the whole**, both of which sometimes need to be annotated, such as in Measurement relations. For example:

The Philadelphia police chief announced that **four of the suspects** were already in custody.

In this case, the persons being counted would be annotated by the full nominal phrase, “four of the suspects,” while the measurement filler would be annotated as just “four.”

Phrases that Contain NAM + NOM (or NOM + NAM)

Phrases that contain NAM+NOM (or NOM+NAM) combinations should be annotated with care. Occasionally, the NOM and NAM mentions refer to the same entity. Annotate both the NAM and NOM mentions separately:

- [Reuters]_{NAM} [international news agency]_{NOM}
- [his loudest critic]_{NOM}, [Jon Stewart]_{NAM}
- [my brother]_{NOM} [John]_{NAM}
- the [Financial Accounting Standards Board]_{NAM}, [the private-sector body based in Norwalk]_{NAM}, [Conn.]_{NAM}, that sets the nation’s accounting standards]_{NOM}
- [the informant]_{NOM} called [Deep Throat]_{NAM}
- [the [London]_{NAM} borough]_{NOM} of [Greenwich]_{NAM}
- [[Google]_{NAM} employee]_{NOM} [John Doe]_{NAM}
- [the president of [Ford]_{NAM}] _{NOM}

5.3.5 Pronominal (PRO) Mentions in Text

A pronominal entity or filler mention (PRO) is a pronoun that corresponds to a nominal or a named entity. The extent of a pronominal mention is usually just a pronoun, without including any modifiers. Below, find some examples of pronouns that would be annotated as arguments of events or relations:

- [He] attacked the camp in the early hours of the morning.
- The banker gave [her] the loan [she] had requested.
- Harper’s business is struggling financially; [mine], however, is only getting stronger in this economy.
- [We] didn’t know that [it] was owned by the Russians.
- [Their] noise filled the room as multiple trucks were revved at the same time.

5.3.6 Extents for Text Mentions of Fillers

Unlike entities, argument fillers do not have mention type (NOM, NAM, PRO), with the exception of WEA and VEH. The rules for identifying the extent of a filler will vary from type to type.

Many argument fillers are mentioned by a noun phrase. Noun phrase extents will consist of the entire noun phrase, including all modifiers, unless otherwise specified. In cases where it’s difficult to decide if modifiers should be included or not, the argument filler extent should include more text rather than less. Occasionally, words that are not a part of the noun phrase will need to be included in order to annotate the entire noun phrase, such as:

Mayor Paul Rickenbach and Kevin McAllister promised to act quickly given the results of yesterday’s vote concerning the Community Preservation Fund.

In this case, the topic of the Contact event is best defined as “the results of yesterday’s vote concerning the Community Preservation Fund.” Because the word “yesterdays” is in the middle of the noun phrase, we’ll have to annotate it as well. So the extent of a Result filler in the Topic slot of the Contact.CommitmentPromiseExpressIntent.Unspecified event is:

[the results of yesterday’s vote concerning the Community Preservation Fund]_{RES}

As a rule, we do not include punctuation such as commas, periods, and quotation marks in the extent of a mention unless words included within the extent continue on after the punctuation mark.

Below, find a list of all filler types and the rules surrounding their particular extents:

- **Ballot (BAL)** - The text extent of BAL is usually a noun or a noun phrase.
 - there were only two choices on [the ballot] which did not include a choice to stay as a part of Ukraine
 - A box of [ballots] went missing
 - [A box of ballots] would not be the extent for the BAL mention since that noun phrase refers to the box (COM), not the ballots.
- **Commodity (COM)** - The text extent of COM is usually a noun or a noun phrase.
 - I bought [a bunch of bananas] at the store this morning.
 - [A large amount of fertilizer] in his backyard was moved to his basement where he began creating explosives.
- **InformationObject (INF)** - The text extent of INF is the string that describes the content or topic of some communication. It might be a noun, noun phrase, or part of a verb phrase.
 - She asked him [to memorize the speech by Monday].
 - He lied about [not knowing the victim].
 - leaving the lawyers to negotiate [the terms of the deal]
- **Law (LAW)** - The text extent of LAW is usually a noun or a noun phrase.
 - [All-Ukrainian Referendum] of 2012
- **MedicalHealthConditionIssue (MHI)** - The text extent of MHI is usually a noun or noun phrase used to describe a medical condition.
 - the 2002 [SARS] outbreak
 - He left with [a broken nose].
 - Pascal died of [a cancer which had spread to his brain].
- **Money (MON)** - The text extent of a MON mention includes modifying quantifiers, the amount, and the currency unit, all of which can be optional.
 - [nearly \$400 Million] was given to the charity in 2010
 - [20 Euros] bought him a nice meal in Granada!
 - imagine if you wanted to pay for the cows with [bitcoins], hahaha.....
 - we paid [400] for it
- **Result (RES)** - The text extent of RES is usually a noun or a noun phrase.
 - multiple violations of [the results of the referendum] as well as the voting processes
 - Poll workers reported [an impressive turnout] in yesterday’s referendum

- **Side (SID)** - The text extent of SID is the string that describes the Side, and will generally be an adjective, a noun, or a noun phrase.
 - [pro-Russian] activists
 - the [socialist] party
 - [Jewish] residents
 - [Star Trek] fans
- **Title (TTL)** - The text extent of TTL is the extent of the title or job name, which will generally be either a noun or a compound noun, or may be a noun phrase.
 - [Vice President] Biden
 - [spokesperson] Mary Gillette
- **Value (VAL)** - The text extent for a numerical VAL is the smallest string of words that includes both the number and the indicator (type of number -- %, percent, miles, kilometers, etc.) and any quantifiers that might be present such as 'nearly', 'almost' and 'over'. The text extent for a VAL might also be a string which refers to some informational property, often a noun phrase.
 - [25%] of all respondents
 - [almost three miles] in height
 - More information is available at [<https://www.marketresearch.com>]
 - wearing a [dark green] coat
- **Vehicle (VEH)** - The text extent of VEH is usually a noun or a noun phrase, and may be a name. **Note that VEH fillers will require a NAM/NOM/PRO mention level.**
 - The very next day, he boarded [a passenger train bound for Amritsar]_{NOM}
 - [The helicopter]_{NOM} carried 55 soldiers
 - [The airplane used for evasive action and later turning up in Moscow]_{NOM} belonged to Yanukovych
 - Adeline embarked on the [SS Andrea Doria]_{NAM} from New York City to Italy.
- **Weapon (WEA)** - The text extent of WEA is usually a noun or noun phrase, and may be a name. **Note that WEA fillers will require a NAM/NOM/PRO mention level.**
 - He robbed a bank, holding up the entire place with [a gun]_{NOM}
 - [Tanks]_{NOM} blew up and crushed a café in the Kasbah.
 - The police and protesters suffered from exactly that same [bullet]_{NOM} wound
 - [Fat Man]_{NAM} was the second of the only two nuclear weapons ever used in warfare

5.3.7 Tricky Cases and Interactions Among Entity Types

5.3.7.1 Determiners and Mention Span

The general rule is that determiners are included with nominal mention extents, but not with named mention extents. Determiners are included in the annotation of nominal entities that contain a named entity, as in the following example.

- [a [Gulshan Hotel]_{FAC} driveway]_{FAC}
- [the [Smith]_{PER}'s house]_{FAC}

This nesting is particularly common when a NAM entity is adjacent to a NOM entity.

5.3.7.2 Nested Entity Mentions

An entity mention which occurs inside another entity mention, regardless of its mention level, may be annotated if it is a participant of an event or relation - but only if it refers to a different entity from the nominal mention with the larger extent:

- [North of [India]_{GPE.NAM}]_{LOC.NOM}
- [[Da Nang]_{GPE.NAM} International Airport]_{FAC.NAM}
- [[George Washington]_{PER.NAM} University]_{ORG.NAM}
- [Building 202]_{FAC.NAM} is [the office of the [Ministry of Transportation]_{ORG.NAM}]_{FAC.NOM}
- [the [Clinton]_{PER.NAM} government]_{ORG.NOM}
- [[Treasury]_{ORG.NAM} employees]_{PER.NOM}
- [[U.S.]_{GPE.NAM} exporters]_{ORG.NOM}
- [[Texas]_{GPE.NAM} schools]_{ORG.NOM}
- [[Kentucky]_{GPE.NAM} Fried Chicken]_{ORG.NAM or FAC.NAM}
- [[government]_{ORG.NOM} offices]_{ORG.NOM}
- [[Kurdistan]_{GPE.NAM} Freedom Fighters]_{ORG.NAM}
- [the [Midwestern]_{LOC.NAM} bank]_{ORG.NOM or FAC.NOM}
- [the [Russian]_{GPE.NAM} foreign minister]_{PER.NOM}
- [the [American]_{GPE.NAM} companies]_{ORG.NOM}
- [[Israeli]_{GPE.NAM} troops]_{PER.NOM}
- [[Republican]_{ORG.NAM} voters]_{PER.NOM}
- [[airline]_{ORG.NOM} regulators]_{PER.NOM}
- [[Chrysler]_{ORG.NAM} factories]_{FAC.NOM}
- [[union]_{ORG.NOM} leaders]_{PER.NOM}
- [The [Chinese]_{GPE.NAM} military]_{ORG.NOM}
- We met at the [[California]_{GPE.NAM} Pizza Kitchen]_{FAC.NAM}

When you encounter a possessive construction, it may contain two entity mentions. Note that when the construction is comprised of two named mentions, such as in the third example below, the two entities are annotated separately (i.e., the possessive entity is not embedded). Note also that the text extent for the possessive entity does not include the possessive marker ('s in English):

- [[Temple University]_{ORG.NAM}'s graduate school of business]_{ORG.NOM}
- [[Canada]_{GPE.NAM}'s parliament]_{ORG.NOM}
- [Singapore]_{GPE.NAM}'s [Central Narcotics Bureau]_{ORG.NAM}

5.3.7.3 NAM vs. NOM

Some ambiguities can arise when trying to make a distinction between NAM and NOM entities. It may appear that a NOM is being used to name something, or that a NAM mention may be separated into a few NOMs.

A general property of NAMs is that they are defined to pick out one particular entity as a referent. They are unique identifiers, like "Bill Clinton" or "United States." One of the trickiest parts of distinguishing between NAMs and NOMs is that some NOMs are modified by NAMs, such as:

the Pakistani army
the Chinese embassy

the Egyptian supreme court
the University of Chicago payroll department

It is hard to decide whether the whole string should be treated as a NAM, or as a NOM mention with a modifying GPE/ORG named entity, or even as two independent NAM entity mentions. Some ORGs are unambiguously NAM, as they automatically pick out one specific entity, not a member of a set:

[Nazareth Academy] ORG.NAM
the [Danger Danger Gallery] ORG.NAM
the [[United States]_{GPE.NAM} Armed Forces] ORG.NAM

Some ORGs are unambiguously NOM, as they could not be considered the name of an organization, only a type of organization:

[the [U.S.]_{GPE.NAM} military] ORG.NOM
[the [Chinese]_{GPE.NAM} embassy] ORG.NOM or FAC.NOM

Some are tricky and you probably need to rely on external resources (such as Wikipedia) for reference:

the [[Pakistani]_{GPE.NAM} army] ORG.NAM
[the [Egyptian]_{GPE.NAM} supreme court] ORG.NOM
[the [University of [Chicago]]_{GPE.NAM} payroll department] ORG.NOM

If you encounter a named mention embedded in a nominal mention, and both mentions refer to the same entity, then you should tag the nominal mention of the entity during annotation.

5.3.7.4 The Extent of LOC and GPE mentions

There are a few things you should take careful note of when annotating LOC and GPE entities. LOC or GPE mentions in which place names are typically separated by a comma in English should be annotated as separate entities:

- [Kaohsiung]_{GPE}, [Taiwan]_{GPE}
- [Ford's Theater]_{FAC}, [Washington D.C.]_{GPE}

When a "designator" is used as a regular part of a place name, that word should also be included in the extent of the entity. For example, include the word 'River' in the name of a river, 'Mountain' in the name of a mountain, 'City' in the name of a city, etc.:

- [Mississippi River]_{LOC}
- the [Himalayan Mountains]_{LOC}
- [New York City]_{GPE}

5.3.7.5 Entity Types and Annotating for Usage

We always annotate mentions according to how they are used in context. For example, if we have the sentence '[Kansas] beat [Georgetown] last night', we annotate 'Kansas' and 'Georgetown' as ORGs since they are referring to sports teams, even though superficially they appear to be referring to GPEs.

The name of one entity may be used to refer to a different entity. You may also encounter multiple mentions of the same entity that require different entity types. Use your judgment in assigning the appropriate entity type. Let's look at the following examples:

- [Wouters]_{PER}, 42, died an hour later at [St. John Macomb Hospital]_{FAC}
- [The suspect]_{PER} died later the same night, [hospital]_{ORG} spokeswoman [Rebecca O'Grady]_{PER} said Thursday.
- [America]_{ORG} brought home the gold. ("America" referring to a sports team)
- The [Guggenheim Museum]_{ORG} announced a new acquisition
- The [Guggenheim Museum]_{FAC} was designed by [Wright]_{PER}
- [He]_{PER} flew into [JFK]_{FAC} yesterday.
- I'm going to spend the day walking around the [University of Pennsylvania]_{FAC}
- Looks like I was accepted to attend the [University of Pennsylvania]_{ORG}

5.3.7.6 Conjoined Entities

When a phrase refers to multiple entities, annotate each entity separately where possible. For instance:

- [China]_{GPE} and [South Korea]_{GPE} signed the agreement.
- [Jimmy]_{PER} and [Rosalyn Carter]_{PER}
- [North]_{LOC.NAM} and [South America]_{LOC.NAM}

But be careful not to split full, proper names. For instance:

- [Trinidad and Tobago]_{GPE.NAM}
- the [Fish and Wildlife Service]_{ORG.NAM}

Also, if the modifier comes after the coordinated nouns, we would annotate the full extent in the same fashion:

- [students and faculty at [Penn]]_{ORG.NAM} _{PER.NOM}
- [students and faculty at Penn] _{PER.NOM}
 - There are two instances in which you would tag [students and faculty at Penn]; first, if the entity you intend to tag is both the students and the faculty, and second, if you intend to tag just the students. If you intend to tag just the faculty, the extent would be [faculty at Penn]_{PER.NOM}.
- [the East and South of [Iran]]_{GPE.NAM} _{LOC.NOM}
- [the East and South of Iran]_{LOC.NOM}

Some cases may require annotating a phrase as a single entity, such as in cases where only a single noun is present but modifiers might suggest two distinct entities. For instance:

- [[American]_{GPE.NAM} and [Canadian]_{GPE.NAM} soldiers]_{PER.NOM}
- [the CEOs of [Google]]_{ORG.NAM} and [Youtube]_{ORG.NAM}]_{PER.NOM}

Cases where multiple entities are joined together by punctuation marks in a single, continuous string can still be annotated separately:

- [Af]_{GPE.NAM} --[Pak]_{GPE.NAM}

- [Brad]_{PER.NAM}&[Angelina]_{PER.NAM}
- [me]_{PER.PRO}+[you] _{PER.PRO}

However, if multiple entities are merged by neologism or slang, we annotate only one entity:

- [Braga]_{PER.NAM} (where Bradley Cooper and Lady Gaga are merged into one entity)

5.3.7.7 Places of Contention

Places of contention should be annotated to reflect how they are talked about in the document. You can tag them as GPEs as long as they are talked about as GPEs, meaning they have all three components of a GPE (i.e. GPE = population + location + government). If a place of contention is not talked about as having all three of these components, it should be annotated as a LOC instead.

5.3.7.8 Annotating Parts of Places and Objects

When you need to annotate a portion of a non-GPE entity or an untaggable part of an otherwise taggable object, annotate the sub-parts of the entity with the same type.subtype.sub-subtype as the whole. For example:

- [the rooftop of the Chrysler building] → FAC.Building.OfficeBuilding
- [the 3600 block of Market St.] → FAC.Way.Street
- [a corner of the square the police had captured] → FAC.Structure.Plaزا
- in [the trunk] → VEH.WheeledVehicle.Car
- staring down [the barrel of a shotgun] → WEA.Gun.Firearm

You will probably encounter this most often with mentions of parts of facilities or locations. The idea is to avoid issues with granularity and entity type associated with tagging something like a staircase by simply zooming out and going for the easier tag. If something is happening on or to a staircase in a school, you'll just say that it's happening on or to the school and tag the staircase as a mention of that entity (FAC.Building.School).

Note that this does not apply to GPEs since a constituent part of a GPE would be taggable as either a different GPE (e.g. Philadelphia, a GPE.UrbanArea.City that is a part of Pennsylvania, a GPE.ProvinceState.ProvinceState) or as a Location entity (e.g. University City, a LOC.Position.Neighborhood that is a part of Philadelphia).

5.3.8 Annotating Entities and Fillers in Images or Video

Provenance for an entity or filler mention in an image doc element will be determined by a bounding box that you draw around the mention. Refer to Section 6.2.2 for examples.

Provenance for an entity or filler mention in a video doc element requires bounding boxes drawn on the keyframes taken from the video:

- Select the video in which the entity/filler appears. It must be the same video in which you tagged the event/relation provenance.

- Annotate the entity/filler by choosing the first mention of it within the keyframes and creating a bounding box around it.

Entity/filler mentions in a video must be mentioned visually, i.e. you must be able to see the entity/filler. We cannot tag audio-only mentions of entities/fillers. However, you can use information from the audio to help provide additional context for what you're seeing. For example, if the video shows a man throwing an object, but you can't make out whether it's a rock, grenade, or some other projectile, and the audio says, "A man threw a hand grenade..." then you can use that information to tag the object as a WEA.Bomb.Grenade. But if the video never shows a person throwing something, you can't make an annotation even if the audio says, "A man threw a hand grenade".

You can find more information about tagging entities/fillers in videos in Section 6.3 of these guidelines.

5.4 Annotating Attributes

5.4.1 Temporal Slots

Choose the beginning and end dates for every relation and event. You should choose the dates based on the information that is available in the document element, and you can also use the document date to clarify things like “today” and to figure out when “last week” was.

The annotation tool uses a Day-Month-Year format. For example, “December 21, 2017” should be entered as 21-12-2017.

You can put in XX for underspecified dates. For example, “December 2017” should be entered as XX-12-2017. And “2017” should be entered as XX-XX-2017. “December 21” when there is no way to figure out the year would be entered as 21-12-XXXX.

Types of start date:

- Started On (the event or relation started on this date)
- Started Before (the start date is at least as early as this date)
- Started After (the start date is at least as late as this date)
- Start Unknown (the start date is unknown in this document)

Types of end date:

- Ended On (the event or relation ended on this date)
- Ended Before (the end date is at least as early as this date)
- Ended After (the end date is at least as late as this date)
- End Unknown (the end date is unknown in this document)

For example, if you have a mention that says that Viktor Yanukovych went to Kharkiv and arrived on Saturday the 22nd, and that he gave a speech from Kharkiv on an unspecified date --

what you know from the document is that he could have made the speech the same day he got to Kharkiv, or he could have made the speech on another day after that. This example is a situation where you would use **Started After** the 22nd, indicating that the event could have happened on the 22nd or any day after that, because you know a date that the event must be after, but you don't know the exact date of the event.

You can use the publication date of the document to fill in the year, even if the year is not mentioned in the document itself. You can find the document publication date in the kit itself, or in the full doc view, screenshot, or live web version of the document. However, in order to use the publication date from the full doc view, screenshot, or live web version, some date mention must anchor the date in the annotatable version of the document in some way. For example, "The attack which occurred on Monday" or "They left two days ago" both anchor the date in the document, and you can there use the publication date to fill out the temporal annotation for the respective events. Use the information you have from the context of the document itself to determine how to use the publication date.

For example, if the document is published in 2014, and if you understand a mention of 'February 22' in the document to be the date of some event whose year is known, it's OK to resolve the reference to the complete 22-02-2014. In another instance, references to "September 11th" when obviously referring to the historically significant day could be resolved to 11-09-2001. On the other hand, if the document doesn't give you the year, or any context that would allow you to determine the year, then you should use XXXX for the year. For example, in a document in which February 22 is mentioned, but you can't determine the year of the event, you would put 22-02-XXXX.

Note also that Temporal Slots are annotated for both relations and events. However, many relations are not bound by a date, and temporal information may not be available in the document or the date in the document may not apply to the relation -- when there is no temporal information available in the document or when the date in the document does not apply to the Relation, mark the start and end times as Unknown.

5.4.1.1 Temporal Annotation of Negated Events and Relations

If your document claims that an asserted event or relation did not happen, but a date for the negated event or relation can still be anchored in the document, then you should annotate the date range for the event or relation. That is, your document may state, "The attack, which Smith claims occurred on January 2nd, was simply a figment of his imagination." When annotating the Conflict.Attack.Unspecified event, you would still use 02-01-XXXX as the Start and End Time that the attack did not happen.

5.4.2 NOT and HEDGED

Events and Relations can also be determined as NOT or HEDGED. NOT means that a relation or an event specifically did not happen ("The soldiers didn't attack on the 22nd, even though there was substantial evidence that they would."), while HEDGED is used for events and

relations that may or may not have happened (“Ukrainian authorities think it was Russia who sent aid to the rebels.”)

IF...	Event	Asserted to have occurred	Neither “HEDGED” nor “NOT” is selected
	Relation	Asserted to be true	
	Entity	Asserted to have participated in annotated event role	

IF...	Event	Possibly/likely occurred	Only “HEDGED” is selected
	Relation	Possibly/likely true	
	Entity	Possibly/likely participated in annotated event role	

IF...	Event	Asserted not to have occurred	Only “NOT” is selected
	Relation	Asserted to be false	
	Entity	Asserted not to have participated in annotated event role	

IF...	Event	Possibly/likely did not occur	Both “HEDGED” and “NOT” are selected
	Relation	Possibly/likely false	
	Entity	Possibly/likely did not participate in annotated event role	

Occasionally, using NOT and/or HEDGED will require an event or relation to be annotated more than once. For example,

The Western governments say that the Berkut police shot protesters, but this is obviously false.

We would not try to tease out which of these perspectives is factually correct. If a document contains multiple perspectives, each would be annotated separately. In this event mention example, there are two versions of the same Conflict.Attack.FirearmAttack event. In one version, the Berkut police shot protesters. In the other, Berkut police did not shoot protesters. In mentions like this, whether you mark NOT for the event (indicating that the shooting itself did not occur) or the specific slot (indicating that the shooting did occur, but the Berkut police were not the Attacker in it) will depend on your interpretation of the mention in the larger context of the document. Your interpretation might be that the shooting didn't occur at all, in which case you would mark the negated version of the event as NOT at the event level, like this:

Event 1

- **Conflict.Attack.FirearmAttack:** shot
 - **Attacker:** the Berkut police
 - **Target:** protesters
- No attributes selected

Event 2

- **Conflict.Attack.FirearmAttack:** shot
 - **Attacker:** the Berkut police
 - **Target:** protesters
- **Attribute:** Not

Or you might determine from the context of the mention that the shooting did occur, but the Berkut police are being negated as the Attacker in that shooting. In that case, you would annotate the two versions of the event like this:

Event 1

- **Conflict.Attack.FirearmAttack:** shot
 - **Attacker:** the Berkut police
 - **Target:** protesters
- No attributes selected

Event 2

- **Conflict.Attack.FirearmAttack:** shot
 - **Attacker:** the Berkut police
 - **Attribute:** Not
 - **Target:** protesters

In addition, we annotate this attribute for the perspective of the author of the document, and also for any other perspectives that are presented in the document.

For example:

Olga said she saw snipers on the roof, but the police say their officers were on the street. Neither side's story has been confirmed.

This example of relation mentions is interesting in light of our rule about annotating the face value, "in the world of the document" interpretation of the mention. There are two different relations in this example, and two different versions of each of those relations:

1. the Actual relation of snipers on the roof -- "Snipers are on the roof"
2. the Hedged relation of snipers on the roof -- "Snipers could be on the roof"
3. the Actual relation of officers on the street -- "Officers are on the street"

4. the Hedged relation of officers on the street -- “Officers could be on the street”

There is no explicit negation of the police officers being on the roof, and some officers being located in one of these places doesn't negate the possibility that there are other officers elsewhere, so we do not use NOT relations here. Further, the author doesn't seem to be suggesting that any of these relations are negated or impossible, just that they can't be confirmed, which makes them HEDGED.

5.4.2.1 NOT and HEDGED Together Provide Committed Belief

NOT and HEDGED as attributes allow you to distinguish four basic cases: committed belief that something happened (neither HEDGED nor NOT annotated), non-committed/weak belief that something happened ("hedged" annotated), non-committed/weak belief that something didn't happen (HEDGED and NOT annotated), and committed belief that something did not happen (NOT annotated).

The NOT and/or HEDGED attributes can be applied either to the event itself or to any of the arguments, so you can capture the difference between, for example, not being sure the moon landing occurred vs. believing the moon landing happened but being uncertain about who the astronauts were. For relations, the attributes can be applied only to the relation itself, not to any of its arguments. This is because, if you think you have a relation with a negated (NOT attribute) argument, what you actually have is a negated relation. The same goes for a relation with a HEDGED argument.

Here's a table that summarizes this:

		No HEDGED annotation	HEDGED annotation
No NOT annotation	Event	Definitely occurred	Possibly/likely occurred
	Relation	Definitely true	Possibly/likely true
	Entity	Definitely participated in annotated event role	Possibly/likely participated in annotated event role
NOT annotation	Event	Definitely did not occur	Possibly/likely did not occur
	Relation	Definitely false	Possibly/likely false

	Entity	Definitely did not participate in annotated event role	Possibly/likely did not participate in annotated event role
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5.4.2.2 Sarcasm, Generic Mentions, and Outlandish Theories

In AIDA annotation, we only tag events and relations that have actually happened, or negated or hedged versions of otherwise actual events and relations, i.e. events or relations that actually did not or actually might or might not have happened. For example, "Jill didn't talk to Bill yesterday," is a mention of a singular event, Jill talking to Bill yesterday, the occurrence of which is being negated. We do NOT tag future, generic, or hypothetical events or relations, nor do we tag overly sarcastic or insincere mentions of events or relations. In other words, if the event or relation (or the negated or hedged version of the event or relation) has not occurred at the time the document was created, then it shouldn't be tagged. For example, "Jill would never talk to Bill," is not a mention of a singular negated event, but a generic statement about every possible Contact event between Jill and Bill.

Some documents might contain theories or versions of events or relations which you find to be completely outlandish. If the document presents that idea sincerely, however, you should annotate it like you would any other event or relation. Occasionally, the document itself might comment on the outlandishness of a certain theory. In that case, you should annotate a hedged version of the related events or relations.

For example, if the restricted event in a specific kit is Conflict.Attack.FirearmAttack, and the doc contains the sentence "People are saying the Illuminati shot down MH-17 with a secret missile system designed by Bill Gates (as if)." then you would annotate the event like this:

- **Conflict.Attack.AirstrikeMissileStrike:** shot down
 - **Attacker:** Illuminati
 - **Attribute:** Hedged
 - **Target:** MH-17
 - **Instrument:** a secret missile system designed by Bill Gates
 - **Attribute:** Hedged

Note that it's the arguments, not the event, that are hedged in this example, because the author's parenthetical "as if" isn't expressing doubt that the event happened, just who was responsible and what weapon they used.

6.0 Walkthrough of Exhaustive Event & Relation Annotation

In this task, you'll be asked to annotate events and relations exhaustively, which means you'll be annotating every mention of an event or relation, when it is the type specified by the document. Let's look at how annotation will differ among the various media of text annotation, image annotation, and video annotation.

6.1 Text Annotation

In text annotation, you'll use the text of a document to build and populate your events and relations. You'll be relying on finding triggers for each unique event mention and using those to annotate each mention of an event. All entity arguments for text annotation must come from the text document element and not from the images or videos found within the kit.

Let's look at an example passage in which the same `Medical.Intervention.Intervention` event is mentioned multiple times, and, imagining that the kit in question is restricted to `Medical.Intervention.Intervention` events, let's identify all of the relevant event mentions and their triggers:

Two Stents **Implanted** in Democratic Presidential Candidate Bernie Sanders

The 78-year-old senator reported chest pain after a campaign rally in Las Vegas yesterday and **underwent the emergency procedure** there. "After presenting to an outside facility with chest pain, Senator Sanders was diagnosed with a myocardial infarction," said his doctors, Arturo Marchand Jr., MD and Arjun Gururaj, MD.

The senator was transferred to Desert Springs Hospital Medical Center where doctors **inserted** two stents to open up a blocked artery in his heart.

For exhaustive annotation restricted to this type, you would annotate all three of these mentions as they're all mentions of a `Medical.Intervention.Intervention` event.

6.1.1 Local Arguments in Text Event Annotation

One of the most difficult aspects to exhaustive text annotation will be determining which mentions of entities to choose to fill argument roles in each event. As a general rule of thumb, we'll look for the arguments closest to each event trigger. A "local argument" is loosely defined as a nearby mention of an entity that could reasonably fill an event's argument role while logically being expressed as a part of that specific mention. Local arguments will most likely be found within the same sentence as the event mention, or potentially in the immediate context.

When you tag an event, then, you should pay attention to which version of the event you're tagging, and make sure that the arguments you tag are truly being mentioned as part of that event. If the exact event you want to tag is only mentioned once in the text document element, then figuring out what arguments to use is relatively simple and straightforward. You just have to determine what arguments belong to the event and tag the local mentions of those arguments. If the exact event you want to tag is mentioned multiple times in the same text document element, however, you have to be a little more discerning. For each mention of the event, you should tag the arguments according to the specific narrative being presented in each version of the event. Let's take a look at an example to see this concept in practice.

We'll look back to the example from the previous section which mentions the same `Medical.Intervention.Intervention` event three times.

Two Stents **Implanted** in Democratic Presidential Candidate Bernie Sanders

The 78-year-old senator reported chest pain after a campaign rally in Las Vegas yesterday and **underwent the emergency procedure** there. "After presenting to an outside facility with chest pain, Senator Sanders was diagnosed with a myocardial infarction," said his doctors, Arturo Marchand Jr., MD and Arjun Gururaj, MD.

The senator was transferred to Desert Springs Hospital Medical Center where doctors **inserted** two stents to open up a blocked artery in his heart.

Although each of these mentions of `Medical.Intervention.Intervention` events are talking about the exact same event, each version is slightly different from the others in how the arguments are presented. If you were to tag these three event mentions, you would need to make sure that the arguments you chose for each one reflected the arguments used in each specific version of the event. Let's focus on the Place arguments to see how each mention would be annotated slightly differently.

Event Mention 1: *[Two Stents] [Implanted]* in Democratic Presidential Candidate *[Bernie Sanders]*

In this mention, we get a Patient argument and an Instrument argument, but no Place argument. Although we know from elsewhere in the text that this event is occurring in a hospital in Las Vegas, those mentions of places are local to other versions of this event, so we'll leave Place unannotated here. The annotation for this event would look like this:

- **Medical.Intervention.Intervention:** Implanted
 - **Patient:** Bernie Sanders
 - **Instrument:** Two Stents

Event Mention 2: *[The 78-year-old senator]* reported *[chest pain]* after a campaign rally in Las Vegas yesterday and **[underwent the emergency procedure]** *[there]*.

We do get a Place argument in this mention which says that the event is occurring in Las Vegas. Again, while we know more specifically that the procedure was done in a hospital, that is mentioned in the context of a different version of this event. The Place mention that's local to this version of the event is Las Vegas, so that's what we'll tag as the Place argument. Note that we also don't have an Instrument argument, and though two doctors are mentioned in the paragraph that this mention comes from, it might not be a reasonable interpretation that those two doctors performed the procedure (Treater argument) without more contextualizing information. The annotation for this event, then, would look like this:

- **Medical.Intervention.Intervention:** underwent the emergency procedure
 - **Patient:** The 78-year-old senator
 - **MedicalIssue:** chest pain
 - **Place:** there (Las Vegas)

Event Mention 3: The senator was transferred to Desert Springs Hospital Medical Center [where] [doctors] [inserted] [two stents] to open up [a blocked artery in [his] heart].

This is the most robust version of the event so far. We have mentions of all five arguments, and the place mentioned is the most specific version of the Place argument that we have. All of these mentions are local to the event, so there's no need to consider arguments from elsewhere in the document. The annotation of this version of the event would look like this:

- **Medical.Intervention.Intervention:** inserted
 - **Treater:** doctors
 - **Patient:** his (Bernie Sanders)
 - **MedicalIssue:** a blocked artery in his heart
 - **Instrument:** two stents
 - **Place:** where (Desert Springs Hospital Medical Center)

As a general rule, once you've used a particular mention of an entity as an argument in an event, you should not use that entity mention again when annotating the same event elsewhere. However, you can use previously tagged entity mentions when annotating other events or relations.

For example, look again at the second example from the passage above:

The 78-year-old senator reported chest pain after a campaign rally in Las Vegas yesterday and underwent the emergency procedure there.

In addition to the Medical.Intervention.Intervention event, there is also a Life.Injure.IllnessDegradationSickness event describing Bernie Sanders experiencing chest pain. If we imagine that we're being asked to annotate both of those event types in this document, then you would, of course, need to annotate both event mentions. You would tag the

Medical.Intervention.Intervention event as described above, and the Life.Injure.IllnessDegradationSickness event as follows:

- **Life.Injure.IllnessDegradationSickness:** chest pain
 - **Victim:** The 78-year-old senator
 - **Disease:** chest pain
 - **Place:** Las Vegas

It's okay to reuse the mentions of "The 78-year-old senator" and "chest pain" from the Medical.Intervention.Intervention event since the Life.Injure.IllnessDegradationSickness event is not a mention of the exact same event.

6.1.2 Local Arguments in Text Relation Annotation

Annotating relations using local arguments has an additional rule that differentiates it from event annotation: every relation must contain two arguments, so if two mentions of the exact same relation share at least one argument, then you will have to leave one of those mentions unannotated. Let's look at the following sentence which contains two GeneralAffiliation.Sponsorship.Affiliated relations:

In 1930, Nephi Poultry, Inc., which was **affiliated** with the Utah Poultry Association, was formed, and employed a number of locals. That **affiliation** with the UPA would remain in effect until the late 1950s.

Relation Mention 1: Nephi Poultry, Inc., [which] was [**affiliated**] with the [*Utah Poultry Association*]

- **GeneralAffiliation.Sponsorship.Affiliated:** affiliated
 - **ActorOrEvent:** which (Nephi Poultry, Inc.)
 - **Sponsor:** Utah Poultry Association

Relation Mention 2: That [**affiliation**] with the [*UPA*] would remain in effect until the late 1950s.

Here, we have a trigger for a new mention of the GeneralAffiliation.Sponsorship.Affiliated relation from the previous example. However, only one of the arguments, the Utah Poultry Association, is mentioned in connection with this relation. We know from elsewhere in the passage that Nephi Poultry, Inc. would be the other argument in this relation, but the only mentions of that entity in the passage are connected to a different mention of this exact relation. As a rule, you must have taggable mentions of both arguments in a relation in order to tag that relation. Since the mention of Nephi Poultry, Inc. is local to a different mention of this exact relation, it is not taggable in this mention of the relation, and therefore the GeneralAffiliation.Sponsorship.Affiliated mention here is untaggable.

6.2 Exhaustive Event & Relation Annotation in Images & Video

Images and videos will also be annotated exhaustively, but that will look slightly different from text annotation. Let's look at the important differences and walk through how to annotate restricted events and relations exhaustively in images and videos.

6.2.1 Individuals vs. Groups in Images & Video

An important distinction that must be made in images and video is when there is a “group” and when there are “individuals.” In this task, we’ll use the following rule of thumb: when fewer than ten people are included in one event or relation, they will be treated as individuals, and should thus be exhaustively annotated as individuals. When there are ten or more people present, they should be treated as a group and annotated as a group. Below, we’ll annotate some examples of individuals and groups.

6.2.2 Exhaustive Event & Relation Annotation in Images

Because images are static, we can only annotate what we can immediately see being triggered within the image. Some events and relations will be difficult to find in images, but some will commonly occur in the same image a number of times. Let’s look at this example of several GeneralAffiliation.ArtifactPoliticalOrganizationReligiousAffiliation.OwnershipPossession relations:



In the image we see a group of rebel soldiers, several of whom are wearing orange and black St. George's ribbons, a symbol of pro-Russian leanings. The soldiers wearing these ribbons triggers their possession of them, which is annotatable as a GeneralAffiliation.ArtifactPoliticalOrganizationReligiousAffiliation.OwnershipPossession relation. Because this is a group of fewer than

ten people, each soldier's possession of his St. George's ribbon can be annotated uniquely as such:

The soldier in the front:



The soldier to the left:



The soldier on the right:



The soldier in the back:



Now let's look at an example of a group or more than ten people annotated as a Transporter ARG in this Movement.TransportPerson.SelfMotion event:



Because there are more than 10 soldiers marching, they would be annotated as a group of PER entities, marching as the Transporter argument of just one Movement event. You would not exhaustively annotate a new Movement event for each soldier.

6.3 Exhaustive Event & Relation Annotation in Video & Video Keyframes

Exhaustive annotation in video will be done in two steps: first, you must identify the extent of the event or relation within the video using timestamps; second, you must annotate the arguments of the event or relation in the video keyframes, which are images created by combining a length of video into a static image.

You will be presented with multiple keyframes for each video, and your job will be to identify the first instance in which you can identify each argument in a keyframe at the time when it is acting as an argument in the event or relation you're tagging. Because keyframes will often be a little blurry, since they are a composite of video stills, you can use the video as context to help you identify who is in the video, where they are, what's happening, etc. Similar to image annotation, you'll use the same rule of thumb for annotating individuals and groups: under ten people present should be annotated as individuals, 10 or more as a group.

Just like in text, you should also make sure to tag the local mention of an entity that is acting as an argument in the event or relation you're tagging. A single entity might show up in many keyframes associated with a video. The mention of that entity that you tag should generally be the mention in which the entity is filling the role which you're tagging in the specific event or relation, though there can be cases where you can use the video's sound to justify tagging an argument that is shown at a time when it is not participating in the event or relation (see Section 6.4 below).

Let's take a look at an example⁴ which contains five Contact.PublicStatementInPerson.Broadcast events that can be annotated.

*****In each of the examples in this and the following sections, make sure to open the video from the link in the footnote and watch the sections indicated by the given timestamps for each example. It's not always clear what's happening in a still image taken from a video, but you will be able to use the video to make sense of what you're seeing in each keyframe during annotation. The following examples will make the most sense if you employ the same tactic.***

Example 1 [00:00:04]-[00:00:25], or 4.xyz to 25.xyz

The first Contact.PublicStatementInPerson.Broadcast event we can capture occurs from [00:00:04]-[00:00:25]. In addition to the video, there may be multiple keyframes, which are still images made from composites of the event extents. They might look like this:

⁴ From [PGA Web.com Tour Press Release at Peek'n Peak Resort](#)



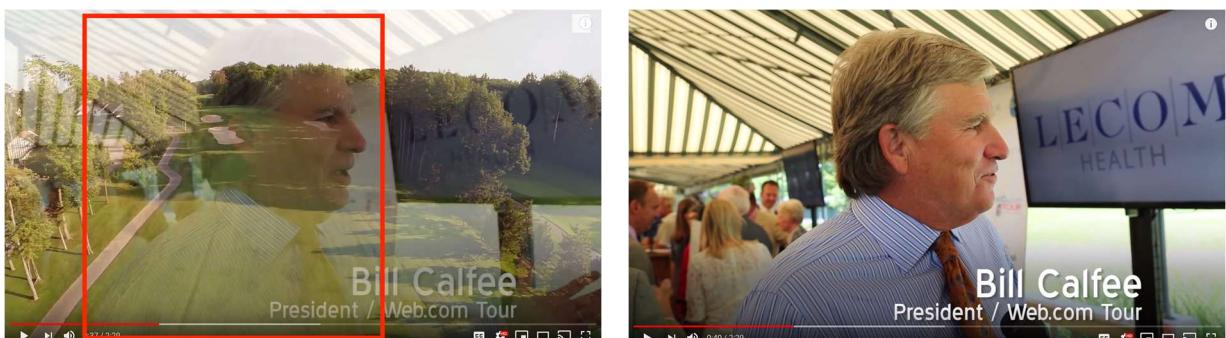
While you might be tempted to annotate the man speaking as the Communicator ARG from the second keyframe, in which you can clearly see him, we always want to annotate the first instance of the argument from the available keyframes in which the entity is participating in the event or relation you're tagging. You would then draw your bounding box in the first image like this:



Great! Let's look at some of the other instances of Contact.PublicStatementInPerson.Broadcast events found in this same video:

Example 2 [00:00:37]-[00:00:47], or 37.xyz to 47.xyz

The keyframes from this mention might look like this. Again, although the entity is shown more clearly in the second keyframe, the first keyframe is an earlier instance of that entity and should get the bounding box.



Example 3: [00:00:56]-[00:01:05], or 56.xyz to 65.xyz

Note that, in the tool, timestamps are always represented only as seconds, so the starting and ending timestamps here would be represented as 56.xyz and 65.xyz, respectively.



Example 4: [00:01:47]-[00:01:59], or 107.xyz to 119.xyz



Example 5: [00:02:00]-[00:02:05], or 120.xyz to 125.xyz



Notice that, in the last annotated event, unlike the previous four, the camera switches instantly to Thomas speaking, but fades out. As always, the bounding box should go around the first time the entity is mentioned in the keyframes while they're participating in the event or relation, so in this case, the bounding box goes around the more clear mention.

6.3.1 Video Scene Changes and Exhaustive Annotation

In exhaustive video annotation, we will sometimes need to annotate the same event multiple times if the camera scene changes. While we can often tell that the event that's occurring in the new scene is the same as the one before, we should think of scene changes as a new piece of media. Similar to event and relation mentions in text, each new scene creates a new mention of the event or relation in the video. Let's look at an example⁵ in which a group of people are throwing rocks and other debris at police officers in Ukraine. The Conflict.Attack.Unspecified event begins immediately:

Event Mention 1: [00:00:00]-[00:00:06], or 0.0 to 6.xyz

Keyframe:



Attacker:

Instrument:



Target:

⁵ From [Ukraine riot police forced to flee as pro-Russian separatists storm Donetsk prosecutor's office](#)



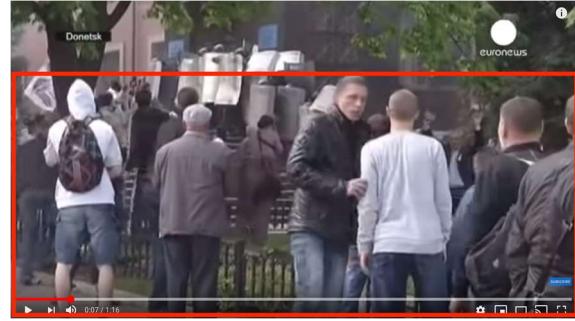
However, we see the scene change between [00:00:06] and [00:00:07], creating a new mention of the event. We can then annotate the second event from [00:00:07]-[00:00:09] like this:

Event Mention 2: [00:00:07]-[00:00:09], or 7.xyz to 9.xyz

Keyframe:



Attacker:



Instrument:



Target:



When the scene changes again at [00:00:09], the mob is still attacking the police by throwing things, and again at [00:00:14], [00:00:19], and at [00:00:24]. All four of those events should be annotated, even though to a casual observer they appear to all be a part of the same, initial

attack event. But because the scene changes, we must annotate them again as new mentions of the initial event.

6.4 Holistic Annotation of Videos: Using Picture and Sound

You can consider each video in a document to be made up of two separate pieces. Those are the audio/sound track, i.e. everything you hear, and the picture/image track, i.e. everything you see. We **do not** tag audio-only mentions of events, relations, or entities/fillers in AIDA annotation. In other words, in order to annotate a piece of information, you must be able to see it.

However, you should consider a video holistically during annotation, meaning the sound of a video can inform your annotation of visual mentions. The following sections describe ways in which you can use the sound of a video to inform your annotation of what you see.

6.4.1 Using Sound to Identify Events, Relations and Entities/Fillers and Their Types

It might be difficult to tell what you're looking at in a video. For example, one Contact event in which two people are shown talking to each other might look just like any other Contact event in which, again, two people are shown talking to each other. If you can hear what the entities are saying to each other, you can use that information to decide whether to tag the Contact event you're seeing as a Contact.Discussion.Meet, Contact.Negotiate.Meet, Contact.RequestAdvise.Meet, etc. Note that it likely won't be possible to tag the content of communication (Topic argument) for that Contact event unless, for example, the video also shows a text transcription of the conversation. Spoken utterances would occur in the sound track, making them untaggable, but written text would be taggable since it would be shown in the picture track.

Similarly, you can use the sound track of a video to identify the entities that you're seeing in the picture track. For example, in a video, you might not be able to identify Andriy Parubiy, the "Comandante of the Maidan," by sight, but if a news reporter refers to the entity in overdubbed narration as "Andriy Parubiy, the Commandante of the Maidan," then you can not only give that entity the handle "Andriy Parubiy," but you can also tag him as PER.Protester.ProtestLeader. You cannot, however, annotate Parubiy's connection to the Maidan side since that mention only occurs audibly.

6.4.2 Using Sound to Identify Arguments of Events or Relations

In a video, you might see an event occurring without seeing all of the arguments at the time that they're participating in the event. (Note that, while the following does apply to relations, this scenario is unlikely to occur in a relation since visual mentions of relations will most likely show both arguments at once.) Typically, if an argument is shown in a video keyframe at a time when it is not participating in the event you're tagging, you would not be able to tag that mention of the argument. As a general rule, in order to tag a visual mention of an argument, the keyframe must

be showing the argument while it is participating in the event that you're tagging. Even if it's obvious to you that an entity shown in the video is the one that filled some role in an event, that entity is not taggable as an argument in the event unless that connection is explicit.

For example, from [00:00:26] to [00:00:32] in the video⁶ from which the below keyframes are taken, we see a Movement.TransportArtifact.BringCarryUnload event that does not include a mention of the Artifact argument.



There is a possible mention of the Artifact argument earlier in the video, from [00:00:00] to [00:00:04].



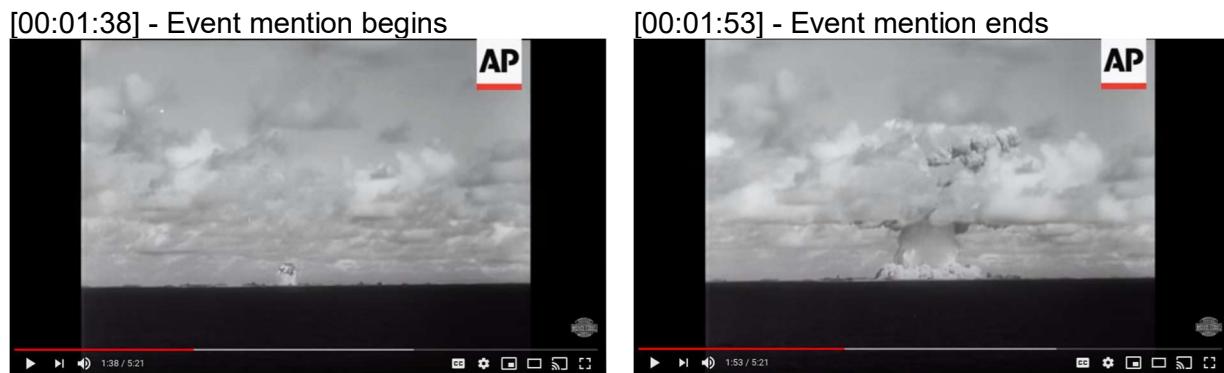
This is already a questionable annotation because we can't know for certain that the trucks shown here carrying the Artifact are the same trucks shown in the Movement.TransportArtifact.BringCarryUnload event. Let's say, for the sake of the example, that we can infer that the trucks shown here are the exact same trucks we see moving later in

⁶ From [Ukraine: Russian humanitarian aid convoy arrives in Donetsk](#)

the video. Even if that were the case, you would still not be able to tag the Artifact argument from this mention because the argument is not being shown at the time that it's participating in the event, and there is no additional information either seen or heard which makes this connection between the event and the argument explicit.

However, since we consider videos holistically, if an entity is shown while it is not participating in the event, but the audio makes it clear that the entity is an argument in the event you're tagging (for example, someone might be explaining this connection in voiceover narration), then you can tag that mention of the entity as an argument in the event. Let's look at an example.⁷

A Conflict.Attack.Bombing event occurs several times in the video, one mention being from [00:01:38] to [00:01:53] shown below, but no Target arguments are shown while this mention of the event is occurring.

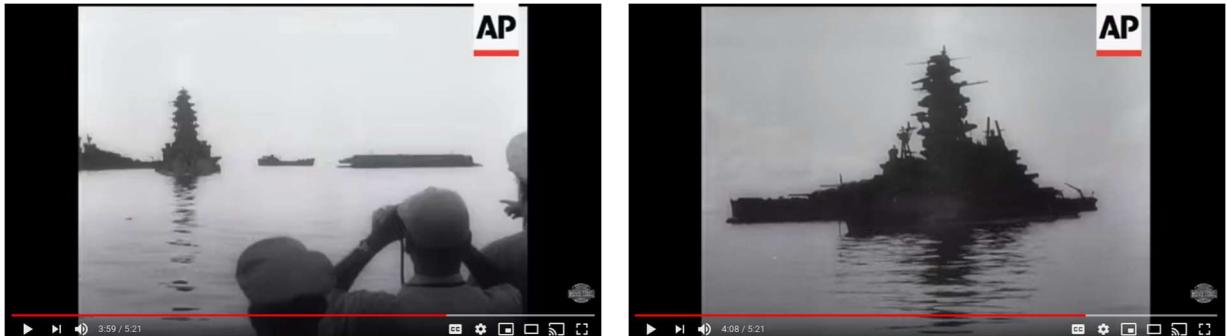


Later in the video, some of the Target arguments of this Conflict.Attack.Bombing event are shown after the event has occurred. Ordinarily, you wouldn't be able to tag these mentions as arguments of the Bombing event since they're not being mentioned while the event is occurring. However, the narrator of the video says, "Among the target ships, one was already missing, the battleship *Arkansas*. The Japanese battleship *Nagato* was listing. She sank soon afterwards," while a ship, presumably the HIJMS *Nagato*, is shown (from [00:03:59] to [00:04:08]).

[00:03:59] - Filler mention begins

[00:04:58] - Filler mention ends

⁷ From [BIKINI - ATOM BOMB NO 5](#)



This is enough to conclude that the ship on screen was a Target argument of the Conflict.Attack.Bombing event from [00:01:38] to [00:01:53], and you can tag it as such. Note that this would also be a valid annotation if the connection between the ship and the Bombing event were made in burned-in text that appears in the video document element rather than narration in the sound track.

6.4.3 Visual Mentions Continuing in Audio

A mention that is occurring in both the picture and sound tracks of a video might have started in the sound track (e.g. you hear an event occurring, and then the camera pans or cuts to the source of the sound, showing you the event) or might continue in the sound track after the visual mention has ended (e.g. the camera pans away from an event that is occurring, but you can still hear it). In such cases where the event or relation is mentioned in both sound and picture, and is also continually mentioned only in audio before and/or after the visual mention, then you can consider the event or relation mention to be continuing even if the visual mention has not yet begun or has ended. You should annotate the timestamps so they cover the entire time the event is mentioned audibly and/or visually. The same applies to annotatable mentions of entities/fillers.

For example, in this video,⁸ watch for the mention of the Conflict.Attack.Bombing event.



⁸ From [Bomb explodes near Anderson Cooper during live report from Gaza](#)

The visual mention of the Conflict.Attack.Bombing event begins at [00:00:09] when the light of the explosion becomes visible. The sound of the explosion, though not concurrent with the visual mention, is a continuation of that same event mention, and you can therefore consider the mention to be occurring until the sound of the explosion has faded, around [00:00:26].

6.5 Non-Exhaustive Argument Annotation

While we are exhaustively annotating events and relations in this task, we will not be exhaustively annotating the entities that fulfill the argument roles for those events and relations. Let's look at an example that we'd used previously:

More than ten thousand demonstrators had gathered and were marching towards city hall. So far, everything has been peaceful, and the protests are expected to remain so. "The protesters are well organized and have one specific demand," chief of police Jacob Hollister said, "and police are on site to observe the situation were anything to get out of hand, but it's a relatively quiet day in New York today."

In the above example, we have two Conflict.Demonstrate mentions and their respective ARGs. We have another sentence which doesn't contain a mention of the restricted event, but does contain a mention of the Demonstrator ARG, "The protesters," (from "The protesters are well organized") and a mention of the Place ARG, "New York" (from "it's a relatively quiet day in New York today."). Even though these entities previously filled argument roles for the restricted events, we don't need to annotate them in this circumstance. We need only annotate them when they're actively filling event argument roles.

The same idea applies to exhaustive annotation in images and video. We annotate entities to fill argument roles only for unique mentions of events and relations that need the argument roles filled. Once an event or relation has been annotated, we don't need to annotate any extra mentions of the entities that once filled those roles.

Appendix I: Identifying Visual Mentions

This section describes general principles for identifying mentions of events, relations, and entities/fillers in visual document elements, namely, images and videos. It also addresses some common problems in annotation of visual document elements that we've identified in previous tasks, as well as difficult situations you might encounter in annotation of visual document elements.

Annotation of visual document elements is not significantly different from annotation of text. In fact, the principles behind tagging visual mentions are exactly the same as those behind tagging text mentions, and to think of them as two different kinds of annotation is likely to lead to confusion and inaccuracy of annotation. Whether you're tagging information in text or a visual document element, you'll recognize that an event or relation is being mentioned, tag the event

or relation trigger and decide on the type.subtype.sub-subtype of the event or relation that is being mentioned, and then identify the arguments of the event or relation. If the argument is an entity or filler, you'll tag the provenance for each argument, and decide what type.subtype.sub-subtype of entity or filler is being mentioned. If the argument is an event, then you'll link the slot to the annotation of the event that is being mentioned.

While these principles are consistent across the types of documents in which you'll tag information, the decision-making processes for how to annotate a piece of information in different types of document elements are slightly different due to the nature of text versus the nature of images. In text, you can rely on the definitions of words to tell you what this event is, or what that relation is, or how to classify this or that entity. By contrast, tagging a visual mention requires a different kind of inference and interpretation. An image is not a word with a definition. You'll have to decide what you're seeing, how to define it, and how, if at all, it fits into the ontology.

That last point is where things can get a little sticky. You might not be accustomed to deconstructing an image so thoroughly as to sort its constituent parts into rigidly defined categories. Typically, you see something happen, and you just know what's happening. You don't have to think, this type of event is occurring, this type of person is playing this role in the event, that type of person is playing that role in the event using this object, and it's occurring in this place at this time. But that is exactly what you'll have to do in this task.

So, with that in mind, let's take a look at some problematic annotation that has come up in previous tasks, and some difficult situations you might face in your annotation of visual document elements. Note that, in this section, we'll mostly consider purely visual mentions where no text appears in the image since text shown in an image (for example, burned-in text, a live transcript, a chyron containing a headline in the lower third of a news clip, etc.) comes with all the interpretive benefits of mentions in a normal text document element.

Identifying Supertypes

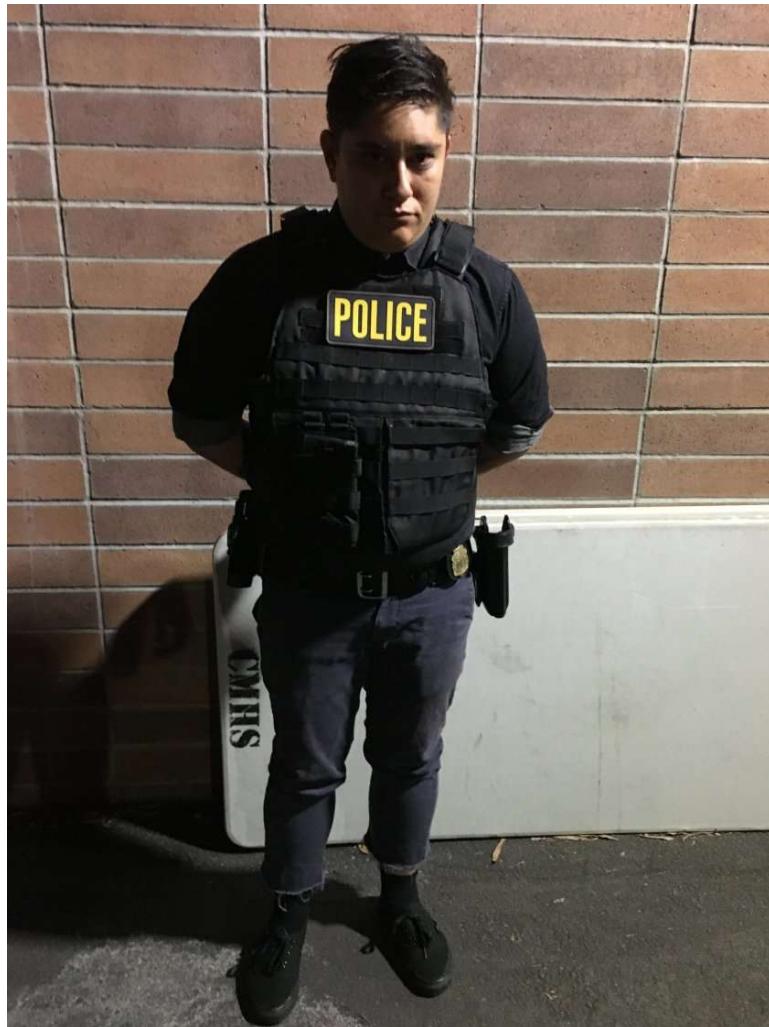
The supertype refers to the categorization of a piece of information as either an event, relation, or entity/filler. An event is something that happens, a relation is the relationship between two things, and an entity/filler is something that plays a role in an event or relation. When tagging visual mentions, make sure that the supertype matches what you're seeing. Usually, you won't have to think twice about the supertype as it should be fairly obvious whether you're looking at an event, relation, or entity/filler. However, there can be some tricky types. For example:



Сторонник федерализации на референдуме в Донецке, 11 мая 2014 года
(Supporter of federalization at a referendum in Donetsk, May 11, 2014)

This image comes from a document about a referendum, and the caption of this image explains that the image is of a referendum. If you're not thinking carefully about supertype, you might try to tag a LAW.Referendum.Referendum filler in this image. However, this image is of an action taking place, and should therefore be tagged as an event, namely Government.Vote.CastVote. There is no LAW filler mentioned in this image. Note that it's generally difficult to represent LAW visually since that entity/filler type typically refers to abstract concepts, not to physical objects.

If you're familiar with previous versions of AIDA annotation, another tricky type might be GenericCrime events. In the past, crimes which could not be tagged as other event types would be tagged as Crime (CRM) fillers. In the current ontology, the CRM filler has been removed, and crimes which are not taggable as another event type are tagged as GenericCrime events, which you'll notice fall under a different supertype than the CRM filler. For an example, take a look at the following image.



Huntington Beach woman is pictured after her Nov. 1 arrest on suspicion of impersonating a police officer.

The woman in the photograph is shown impersonating a police officer, which is a crime that is not taggable as any other event type in the ontology. In fact, if anything, this would be tagged as an OrganizationAffiliation relation. In the context of a Justice event, however, since relations are not taggable as the Crime argument, you would tag this as a GenericCrime event instead.

Identifying Visual Mentions of Entities

Of the five entity types (FAC, GPE, LOC, ORG, PER), PER entities are the most likely to be mentioned visually in such a way that you can tag them. There are significant limitations on when you can tag visual mentions of the other four entities types (described below), but only one limitation applies to visual mentions of PER entities, and it is one you should never have to use during annotation since we vet our documents to eliminate exactly this kind of thing -- you should not tag an image of a dead body as a PER mention.

We do not tag ambient visual mentions of place (FAC, GPE, LOC) entities. For example:



Fairmount Park Conservancy Hike

This is an ambient mention of a place entity. It's essentially functioning as a background, and it's difficult to say where the mention of the entity begins or ends. Further, although the caption (which comes from the text document element and is therefore not taggable within events or relations that are being mentioned in the image) explains that this image was taken in Fairmount Park, it's a stretch to say this is an image *of* Fairmount Park. Rather, this is an image of a small section of Fairmount Park, the bounds of which are difficult to define. To avoid confusion for ourselves and for systems, we would simply not tag a place mention like this as an argument in any event or relation.

Mentions of ORG entities will likely also be infrequent in visual document elements. In order to tag some group of people as an ORG, that group would have to represent the ORG in its entirety. Four or five soldiers shown standing together, for example, are not a mention of an army, though they might be all of the members of a small ORG unit within the army and would be taggable as such if that information were explicit in the document. An ORG's logo is also *not* a mention of that ORG entity (see "Symbolic Mentions of Entities/Fillers" below).

Textual mentions of any type of entity within a visual document element are valid and taggable mentions of the entity in question.

Identifying Visual Mentions of Fillers

Some types of fillers are far more likely to be mentioned in visual document elements than others. The filler types that refer exclusively to physical objects (for example, COM, WEA, and

VEH) occur frequently and are generally unproblematic. They are similar to entities, and similarly easy to identify as long as you're looking carefully. There are some types, on the other hand, that are difficult to portray visually. Recall the example above of LAW.Referendum.Referendum. LAW fillers are usually not physical objects and therefore are not often mentioned in visual document elements (except possibly as text within an image or video). RES, SID, and TTL are examples of other filler types that are unlikely to be mentioned purely visually (i.e. mentioned as something other than text within an image or video). For example, the following image does contain a mention of a TTL filler.



The text within the image which reads “Secretary-General” is a valid visual mention of a TTL filler, and you could therefore tag the PersonalSocial.Role.TitleFormOfAddress relation between António Guterres and his title, tagging the entities like so:

Arg1 - Person



Let's consider whether or not we have a mention of a PersonalSocial.Role.TitleFormOfAddress in the following image.



Ukrainian president Volodymyr Zelensky attends a press conference in Tallinn, Estonia, November 26, 2019.

In the above example, although we know Volodymyr Zelensky has the title of President and even receive that information in a caption, there is no mention of that title in the image itself, and you therefore would not be able to tag either a TTL filler or a PersonalSocial.Role.TitleFormOfAddress relation in the image.

Symbolic Mentions of Entities/Fillers

You might encounter visual mentions of objects which stand in for or represent other entities or fillers. For example, you might see a map of a town, the flag of a country, or the logo of an organization. Each of these things represents an entity, but is not the entity itself, and therefore is not a taggable mention of the entity.



An umbrella can be construed as a pro-democracy symbol in the context of some protests in Hong Kong. You might therefore be tempted, in an image like the one above, to tag a GeneralAffiliation.MemberOriginReligionEthnicity.Unspecified relation between the protesters and the pro-democracy SID. However, the umbrellas in this image only represent the SID filler, they are not a mention of the SID filler itself, so neither the filler nor the relation is taggable.

That said, if a symbol which represents an entity or filler also happens to include a visual text mention of an entity or filler, then that text is, in fact, a valid mention of the entity or filler.



Aleksandr Ermochenko (EPA-EFE)



The top image above, which shows soldiers holding one version of the flag of the Donetsk People's Republic, is not a valid mention of that GPE. The flag symbolizes the DPR, but is not a mention of the DPR itself. The bottom image, however, contains the text Донецкая Народная Республика (Donetsk People's Republic). The flag and the symbol on it still are not mentions of that GPE, but the text on the flag is, so tagging that text as the GPE would be a valid annotation.

Subtle Relations

Some types of relations can be mentioned very subtly, and these might be easy to miss. Specifically, Physical.LocatedNear.Unspecified, which represents a person or object being in a place, and GeneralAffiliation.ArtifactPoliticalOrganizationReligiousAffiliation.OwnershipPossession, which represents an entity owning or possessing an object, can be very slippery. If your kit is restricted to one of these types, you will of course be looking for them very closely, but some mentions still might slip by you if you're not being extremely diligent. Let's take a look at an example to see how quickly these two types can add up.



To start with the OwnershipPossession relations, we can see several objects being held by people in this image. Each instance of this triggers an individual OwnershipPossession relation between the object and the person holding it. That leaves us with 8 such relations, accounting for the possession of four flags, two signs, and two cameras. All 9 people in the image are also in possession of their clothing, which should be tagged where visible.

In the image below, each individual person is indicated using a bounding box.



In the image below, each non-clothing object being possessed by a person is indicated using a bounding box.



When we consider the mentions of Physical.LocatedNear.Unspecified relations in this image, we see that all 9 people are in such a relation to one taggable non-ambient place entity, namely, the bus stop (indicated using a bounding box in the image below). Since every relation must be between two entities, that leaves us with nine relations of just this one type to tag in this relatively simple image.



Note that we consider the content of a kit when deciding what event and relation types will be annotated within it. We are aware that restricting kits to certain event and relation types, like those discussed above, has the potential to beget enormous numbers of annotations. We'll be careful not to select these types to annotate in a kit if we know there are visual document elements in the kit which contain excessive mentions of them or which would be exceptionally difficult to annotate.

Measurement Relations

You should not tag Measurement relations in visual document elements unless the Measurement argument (arg1) is mentioned as text within the image itself.



In the above example, although we can tell that there are eight tires, there is not an explicit mention of the number eight. We therefore can't tag a Count relation indicating that there are eight tires, any more than we could tag a HeightLengthWidth relation indicating that the man in the image is six feet tall, or a Weight relation indicating that he weighs 175 pounds, etc. Although you might be able to say that all that information is technically in the image, it is not explicit enough to tag.

The example below demonstrates the presence of a Measurement relation in an image document element.

Arg1 - Measurement



Arg2 - EntityOrFiller



In this example, there are explicit mentions of both the Weight argument and the EntityOrFiller argument in a Measurement.Size.Weight relation. That relation is therefore taggable.

Appendix II: Handling Unspecified Events or Relations

In Type-Restricted Annotation, the event or relation types to be tagged exhaustively in a kit will always be identified down to the sub-subtype level. You will never have to tag, for example, all of the Transaction events or all of the Measurement relations in a kit. However, you might get a kit in which one of the restricted types has an Unspecified sub-subtype, for example, Conflict.Attack.Unspecified or OrganizationAffiliation.Leadership.Unspecified. There is a special way to handle Unspecified sub-subtypes in this task, which is the subject of the following appendix.

You can think of the collection of event and relation types to which a kit has been restricted as the full ontology for that specific kit. When it comes to handling unspecified sub-subtypes, this mini-ontology acts identically to the complete unabridged ontology that you might use in another task. You have your specified sub-subtypes within each subtype, and then an Unspecified sub-subtype to be used when none of the other sub-subtypes are appropriate or accurate to what you're trying to tag. Let's ground this concept in a few examples.

Consider the GeneralAffiliation.Sponsorship relation types we have in the full, complete ontology. These are:

- GeneralAffiliation.Sponsorship.Unspecified
- GeneralAffiliation.Sponsorship.AdvisePlanOrganize
- GeneralAffiliation.Sponsorship.Affiliated
- GeneralAffiliation.Sponsorship.HelpSupport

In a task which uses the full, complete ontology, you have AdvisePlanOrganize, Affiliated, and HelpSupport available to you as Sponsorship sub-subtypes. If you find a Sponsorship relation that does not fit into any of those specified sub-subtypes, you would tag it as GeneralAffiliation.Sponsorship.Unspecified. For example:

The rally was organized by Students Against Waste, a club that had been sanctioned by the school until its involvement in a vandalism campaign was revealed last year.

There are three GeneralAffiliation.Sponsorship relations in this small excerpt. They are:

- *GeneralAffiliation.Sponsorship.AdvisePlanOrganize* - “The rally was **[organized]** by Students Against Waste...”
- *GeneralAffiliation.Sponsorship.Affiliated* - “...a club that had been **[sanctioned]** by the school...”
- *GeneralAffiliation.Sponsorship.Unspecified* - “...until its **[involvement]** in a vandalism campaign was revealed last year.”

Now, suppose that you have the same excerpt in a Type-Restricted Annotation kit, and your kit has been restricted to the following types:

- GeneralAffiliation.Sponsorship.Unspecified
- GeneralAffiliation.Sponsorship.AdvisePlanOrganize

Instead of having three specified and one unspecified GeneralAffiliation.Sponsorship sub-subtypes, you only have one specified (AdvisePlanOrganize) and one Unspecified. In the excerpt, you would still tag all three GeneralAffiliation.Sponsorship relations that are mentioned, assuming they fall under the types that are available to you, and using only those available types to tag them. You no longer have the Affiliated sub-subtype, and that sense can't be

represented as `AdvisePlanOrganize`, so you would have to tag it as `GeneralAffiliation.Sponsorship.Unspecified`.

- `GeneralAffiliation.Sponsorship.AdvisePlanOrganize` - “The rally was [**organized**] by Students Against Waste...”
- `GeneralAffiliation.Sponsorship.Unspecified` - “...a club that had been [**sanctioned**] by the school...”
 - Since `GeneralAffiliation.Sponsorship.Affiliated` is not included in this kit’s mini-ontology, you would have to tag this relation as the `Unspecified` sub-subtype.
- `GeneralAffiliation.Sponsorship.Unspecified` - “...until its [**involvement**] in a vandalism campaign was revealed last year.”

Another kit might be restricted only to specified `GeneralAffiliation.Sponsorship` sub-subtypes, leaving out the `Unspecified` version. In that case, there would be no backoff category, so if you see a `GeneralAffiliation.Sponsorship` relation that doesn’t fit into the sub-subtypes that are available to you in the kit, then you would just leave it untagged. You should not try to stretch a mention of some event or relation type that is *not* in the kit’s mini-ontology to fit under a type that *is* in the mini-ontology.

For example, suppose that your Type Restricted Annotation kit only has one `GeneralAffiliation.Sponsorship` relation sub-subtype in its mini-ontology.

- `GeneralAffiliation.Sponsorship.AdvisePlanOrganize`

In the excerpt, then, you only have one taggable relation.

- `GeneralAffiliation.Sponsorship.AdvisePlanOrganize` - “The rally was [**organized**] by Students Against Waste...”

You wouldn’t try to stretch the ontology to make the club being sanctioned by the school or the club’s involvement in a vandalism campaign work as `AdvisePlanOrganize` relations. That would be inaccurate annotation. Instead, you would just leave those mentions unannotated.

Let’s take a look at these concepts using a more robust example, this time focusing on `Movement.TransportPerson` events and `Physical.LocatedNear` relations. Suppose that the mini-ontology for this kit is as follows:

- `Movement.TransportPerson.Unspecified`
- `Movement.TransportPerson.PreventEntry`
- `Movement.TransportPerson.PreventExit`
- `Physical.LocatedNear.Surround`

Now, take a look at the following excerpt, and try to identify events or relations which are taggable given this mini-ontology. Be on the lookout as well for mentions of events or relations

which fall under the Movement.TransportPerson and Physical.LocatedNear subtypes in the full ontology, but which are not represented in this mini-ontology.

As the United States and Mexico continue to restrict options for migrants and asylum seekers, many have been stuck for months in Tapachula, a city in the southern state of Chiapas, hoping for documentation that permits transit north through Mexico to the US border.

Before dawn on Saturday, more than 1,000 migrants and asylum seekers from various African, Caribbean and Central American countries set out together from Tapachula. Following in the footsteps of past caravans, they planned to spend the first night in Huixtla, 41km (25 miles) north, but their journey was cut short approximately three-quarters of the way there.

Mexican immigration and security forces mounted a major operation on Saturday afternoon to halt the caravan's advance. National Guard troops blocked the highway, the main corridor for commercial traffic between Mexico and Guatemala, while other National Guard troops, federal police and immigration agents fanned out in the area.

There are six Movement.TransportPerson events mentioned in this passage.

- *Movement.TransportPerson.PreventExit* - "...many have been [**stuck**] for months in Tapachula..."
- *Movement.TransportPerson.Unspecified* - "...more than 1,000 migrants and asylum seekers from various African, Caribbean and Central American countries [**set out**] together from Tapachula."
 - In the full ontology, this would be considered Movement.TransportPerson.SelfMotion. However, that type is not in the mini-ontology for this kit, so it would be tagged as the Unspecified version.
- *Movement.TransportPerson.PreventEntry* - "...their journey was [**cut short**] approximately three-quarters of the way there."
- *Movement.TransportPerson.PreventEntry* - "Mexican immigration and security forces mounted a major operation on Saturday afternoon to [**halt**] the caravan's advance."
- *Movement.TransportPerson.PreventEntry* - "National Guard troops [**blocked**] the highway..."
- *Movement.TransportPerson.Unspecified* - "...other National Guard troops, federal police and immigration agents [**fanned out**] in the area."
 - In the full ontology, this would be considered Movement.TransportPerson.SelfMotion. However, that type is not in the mini-ontology for this kit, so it would be tagged as the Unspecified version.

There are also several Physical.LocatedNear relations mentioned in the passage, but there are no mentions of the Surround sub-subtype. Because you don't have the backoff category of

`Physical.LocatedNear.Unspecified` in this mini-ontology, you would have to leave those mentions of `Physical.LocatedNear` relations unannotated.

Note that the mini-ontology for a kit is selected based on a previous review of the specific document in the kit, so it will never include an event or relation type that does not appear at least once in the kit. Although no `Physical.LocatedNear.Surround` mentions occur in the selected passage above, we have to assume one appears elsewhere in the document simply because it's included in the kit's mini-ontology.