Final items

- Please provide the registration desk with your signed copyright form if you didn't submit it yet.

- Please email an **updated final version** of your notebook paper with correct citations and acknowledgements by 1. March 2018 to gawad@nist.gov Only these will go on the NIST public website as they arrive.

- If your draft notebook paper is considered FINAL, **then also let us know!**

- Please update citations to give credit for resources used (see trecvid.nist.gov)

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Final items

- Please send a pdf copy of your workshop slides presentation and/or poster to gawad@nist.gov

- Please send additional entries for the bibliography of peer-reviewed work using the TRECVID platform to gawad@nist.gov

- The call for participation will go out around Jan. 2018 with applications due end of Feb.

- The bus will leave at 1:00pm for the courtyard Marriott at Rio, Gaithersburg.
  - You are welcome to have lunch at the cafeteria!

- For those who need transportation before or after 1:00 please let the registration desk know.

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Tentative plans for TRECVID 2018

- **TRECVID workshop** – Traditional date at NIST would be in the week of 12-14 Nov.

- **AVS** will continue (IACC.3 , new 30 Ad-hoc topics, auto & manually-assisted runs, RF option?)

- **INS** will continue (BBC EastEnders data and 30 new topics of the form of "find person X in location Y")

- **VTT** will continue (new set of Vine/Twitter videos)

- **MED** – May be ??

- **LNK** – May be ??

- **New modern SED**

- **NEW** task : Streaming Multimedia Knowledge-Base Population (SM-KBP)

General suggestions/questions

- TRECVID welcomes suggestions for new tasks (due Sep, 2018 to start in TV2019).

- Can participant teams provide baseline systems to help new teams use existing resources to actually finish (submit runs) tasks?

- If not baseline systems, can top performers make their features/models available to other teams?

- Docker images will be available for usage to save development time (Thanks to Robert Manthey!)

- Please send any suggestions for new external software development resources to be added to the tools & resources link at our website:

  http://www-nlpir.nist.gov/projects/trecvid/tv.resources.html

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NEW TASK AT TRECVID 2018

Streaming Multimedia Knowledge-Base Population (SM-KBP) pilot

Overview

- NIST is evaluating the DARPA AIDA (Active Interpretations of Disparate Alternatives) project.

- The goal of AIDA is to develop a multi-hypothesis semantic engine that generates explicit alternative interpretations of **events, situations, and trends** from a variety of data sources.

- Open evaluation of part of this project will include a NEW joint task between TAC (Text Analysis Conference) and TRECVID.

- AIDA participants and TRECVID/TAC participants will work on the same data provided by LDC (Linguistic Data Consortium).

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- Data sources
  - Text
  - Image
  - Video
  - Audio
  - Formal (e.g news),
  - Unformal (e.g social media)
  - Metadata.

- All data will be in **streaming mode** (i.e systems can access the data once in raw format) but can keep featurized version of it.

Definition the of MS-KBP task

- Given streams of text, speech, images, video, and their associated metadata, from a variety of genres, both formal (e.g., news) and informal (e.g., social media, blogs).

- analyze each incoming information item (~100k items in total) and produce a set of structured representations (**knowledge elements**) about **events, sub-events or actions, entities, relations, locations, time, and sentiments (beliefs)** that are observable in that information item (**all of them, not just the most confident!**). These knowledge elements, will be expressed in a defined common semantic representation (using RDF triples turtle syntax).

- Each knowledge element of the representation is expected to have a **confidence measure** associated with it in addition to a **provenance (source) record**.
- Algorithms must also be capable of accepting **alternate contexts** and producing **alternate analyses** for each context.
  - For example, the analysis of a certain image produces knowledge elements representing a **bus on a road**. However, knowledge elements in one or more hypotheses suggest that this is a **river rather than a road**. The analysis algorithm should use this information for additional analysis of the image with priors favoring a **boat**.
- Example:
  - Given a scenario ("Benghazi"), document stream, and several topics. For each topic: Extract all possible Knowledge Elements (entities, relations, events, etc.,) according to a predefined ontology, including alternative interpretations/contexts.

Scenario-Specific Ontology

- Scenarios will involve events such as international conflicts, natural disasters, violence at international events, or protests and demonstrations.

- AIDA will extend KBP ontology of entities, relations, events, belief and sentiment to include additional concepts that are needed in each topic in the scenario

Training/Evaluation data

- One new scenario per evaluation cycle; 4 scenarios total over lifetime of AIDA program.
- 100K docs/scenario, including relevant and irrelevant documents
  - 5-20% of docs will be relevant to the scenario
  - 200 labeled docs per scenario
- 12-20 topics per scenario
- At least one foreign language per scenario, plus English
  - Linguistic resources and tools of a quality and composition to be determined will be provided.

Relationship to TRECVid tasks

- Semantic Indexing (retrieving entities, actions, events)
- Video-to-Text (sentiments around who, what, where and when)
- Localization (provenance from videos and images)
- Instance Search (linking entities (persons, objects) across information items)
- MED and SED (generic and specific events detection)
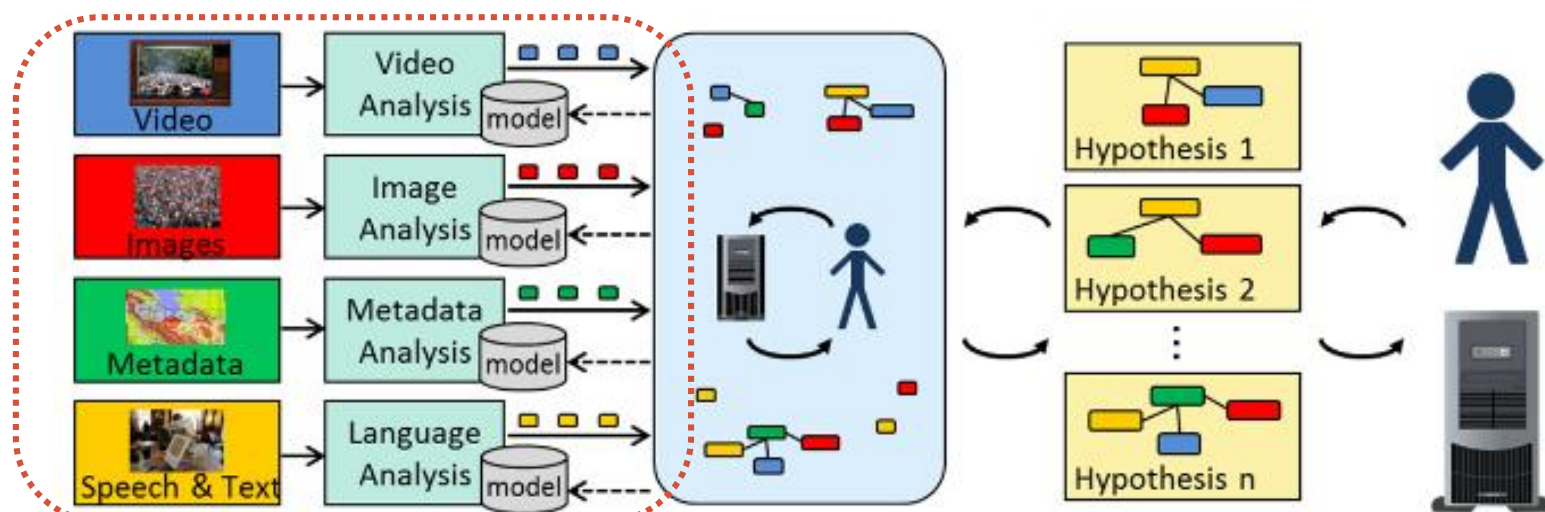
AIDA Evaluation Schedule

- 3 18-month phases
- January 2018 kick-off
- ~Sept 2018: Eval Pilot
- ~May 2019: Eval 1 (Phase 1)
- ~Feb 2021: Eval 2 (Phase 2)
- ~Nov 2022: Eval 3 (Phase 3)

TRECVID 2018 Streaming MM KBP Pilot Evaluation Schedule

- Sample/training/eval data release:
  - ~January: scenario and 3 mostly labeled topics for training; all 100K unlabeled docs for the scenario (foreign languages announced at this time)
  - ~April: 3 additional labeled topics for training
  - ~September 2018: 6 "evaluation" topics
- Early September (?): SM-KBP pilot evaluation window

Opportunities

- Collaborations across TRECVID teams to leverage past task experiences.

- Collaborations between TRECVID and TAC teams to extract "text" + "image/video" knowledge elements.

ACTIVE INTERPRETATION OF DISPARATE ALTERNATIVES (AIDA)

THANK YOU

See you again in TRECVID 2018 ☺