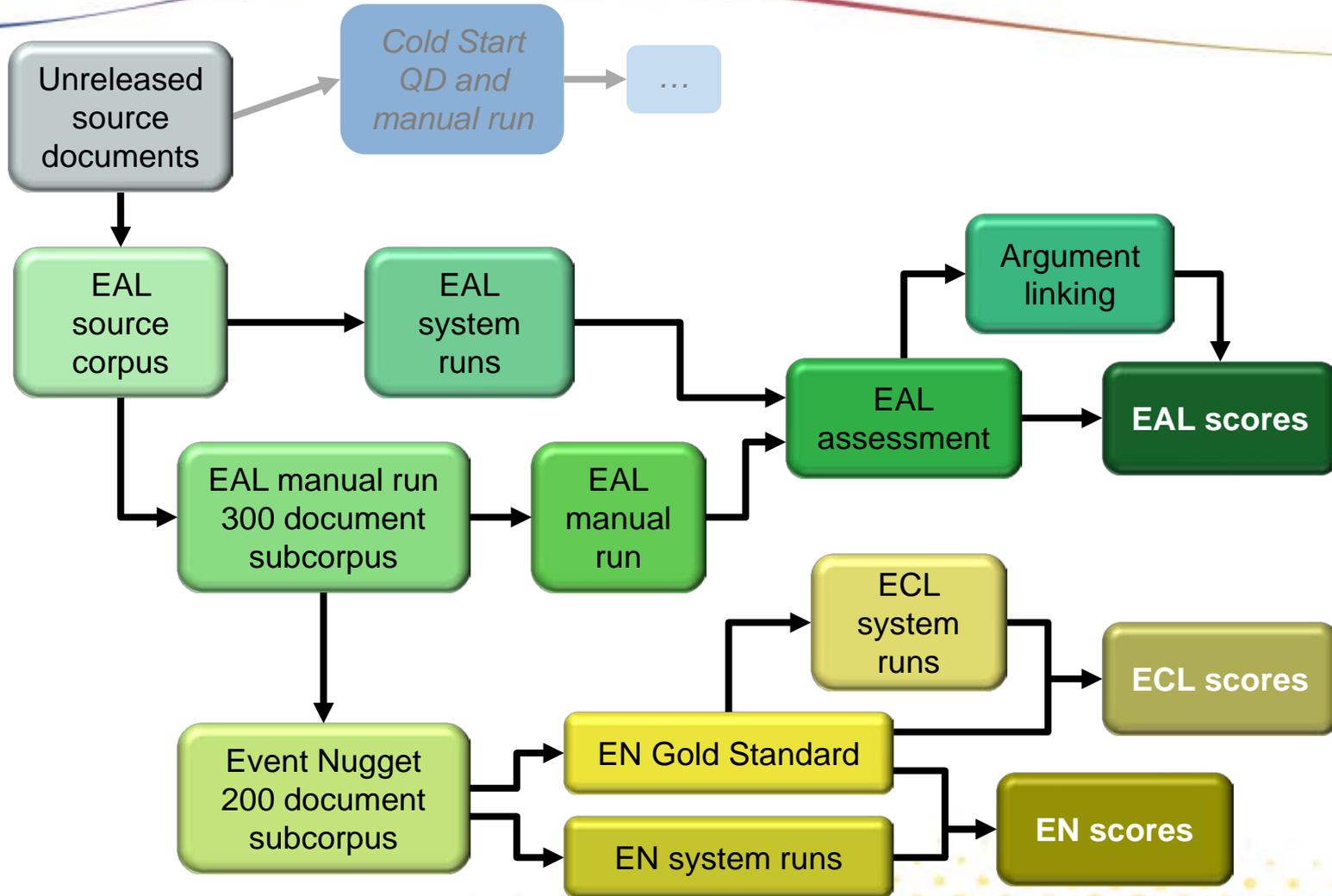
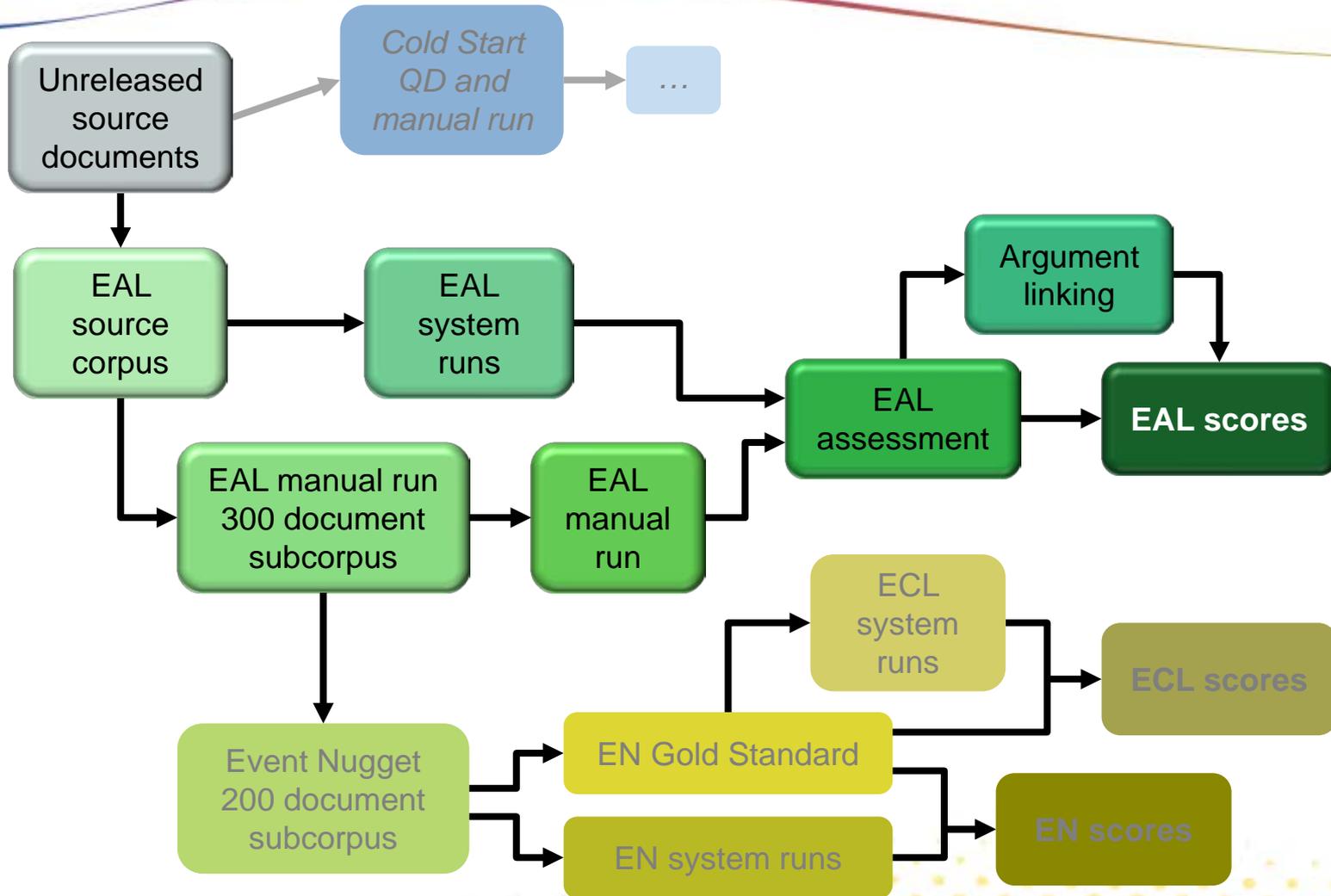




Linguistic Resources for the 2015 TAC KBP Event Argument Linking and Event Nugget Evaluations

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- ◆ Same pools as 2014 EAE
 - Unreleased NYT & DF from 2013 - early 2014
 - 2014 documents removed from pools
- ◆ Annotators produced doc-level tallies of event types
 - Searched for potential documents by keywords
 - Reviewed contents of documents
 - Counted based on Actual events
 - Real events in the past or ongoing in the present
- ◆ 500 previously unreleased documents
 - 50% NW, 50% DF
 - At least 10 unique instances of each event type per genre

bankruptcy

Type: None

Corpus: All Language: unreleased_

Results

- NYT_ENG_20131021_0131
- NYT_ENG_20131021_0178
- NYT_ENG_20130725_0152
- NYT_ENG_20130829_0113
- NYT_ENG_20130912_0168
- NYT_ENG_20130912_0039
- NYT_ENG_20131109_0137
- NYT_ENG_20131225_0105
- NYT_ENG_20130605_0036
- NYT_ENG_20130723_0093

Previous 21-30 of 1002 Next

Truncated Thread Selection

undefined

SourceDoc

<DOC id="NYT_ENG_20130912_0168" type="story" from file="1
newswire/daily_process/nyt/english/source_data/20130912/20130912_0168/460430490ce11ca9a29dcb20ce.xml">

<HEADLINE>
JUDGE APPROVES AMERICAN AIRLINES' PLAN TO EXIT
BANKRUPTCY
</HEADLINE>
<TEXT>
<P>
This article is part of TIMES EXPRESS. It is a condensed
version of a story that will appear in tomorrow's New York Times
</P>
<P>
A federal judge approved American Airlines' bankruptcy plan
Thursday but ruled that the decision was contingent on Justice
Department approval of the carrier's merger with US Airways.
</P>
<P>
Judge Sean H. Lane of the U.S. Bankruptcy Court in New York
confirmed American's proposal to exit restructuring proceedings
nearly two years after the carrier filed for bankruptcy. As part
of the plan, American agreed this year to merge with US Airways,
a move that received the backing of creditors as well as its
three main labor groups.
</P>
<P>
But the merger was challenged by antitrust regulators who filed
a lawsuit in August to block it on the grounds that it would
harm competition and passengers. The airlines have vowed to fight
the challenge and a trial is scheduled for November before a
separate federal court in Washington.
</P>
<P>
Thursday's ruling was supposed to cap a two-year process after
American sought court protection to reorganize its business,
cut costs and rewrite labor agreements in November 2011. It had
initially vowed to emerge as an independent airline, but eventually
succumbed to the efforts by US Airways to merge.
</P>

	Bad	Nothing To Annotate	
Event Types	-	Doc Total	Global Total
Life.Marry	0	0	undefined
Life.Divorce	0	0	undefined
Life.Injury	0	0	undefined
Life.Die	0	0	undefined
Movement.Transport	0	0	undefined
Transaction.Transfer-Ownership	0	0	undefined
Transaction.Transfer-Money	0	0	undefined
Business.Declare-Bankruptcy	2	2	undefined
Business.Merge-Org	1	1	undefined
Conflict.Attack	0	0	undefined
Conflict.Demonstrate	0	0	undefined
Contact.Meet	0	0	undefined
Contact.Phone-Write	0	0	undefined
Personnel.Start-Position	0	0	undefined
Personnel.End-Position	0	0	undefined
Personnel.Nominate	0	0	undefined
Personnel.Elect	0	0	undefined
Justice.Arrest-Jail	0	0	undefined
Justice.Release-Parole	0	0	undefined
Justice.Trial-Hearing	1	1	undefined
Justice.Charge-Indict	0	0	undefined
Justice.Sue	0	0	undefined
Justice.Convict	0	0	undefined
Justice.Sentence	0	0	undefined
Justice.Fine	0	0	undefined
Justice.Execute	0	0	undefined
Justice.Extradite	0	0	undefined
Justice.Acquit	0	0	undefined
Justice.Appeal	0	0	undefined
Justice.Pardon	0	0	undefined
Manufacture.Artifact	0	0	undefined

- ◆ 300 document subset
- ◆ Targeted all unique event arguments that played a role in one of the targeted event types
- ◆ Grouped event arguments into event hoppers
 - Those that played a role in the same event
- ◆ Max 60 minutes spent on each document

Lance Barrett, 23, of London, KY, was charged with first-degree attempted burglary, theft of a firearm, and carrying a concealed weapon.

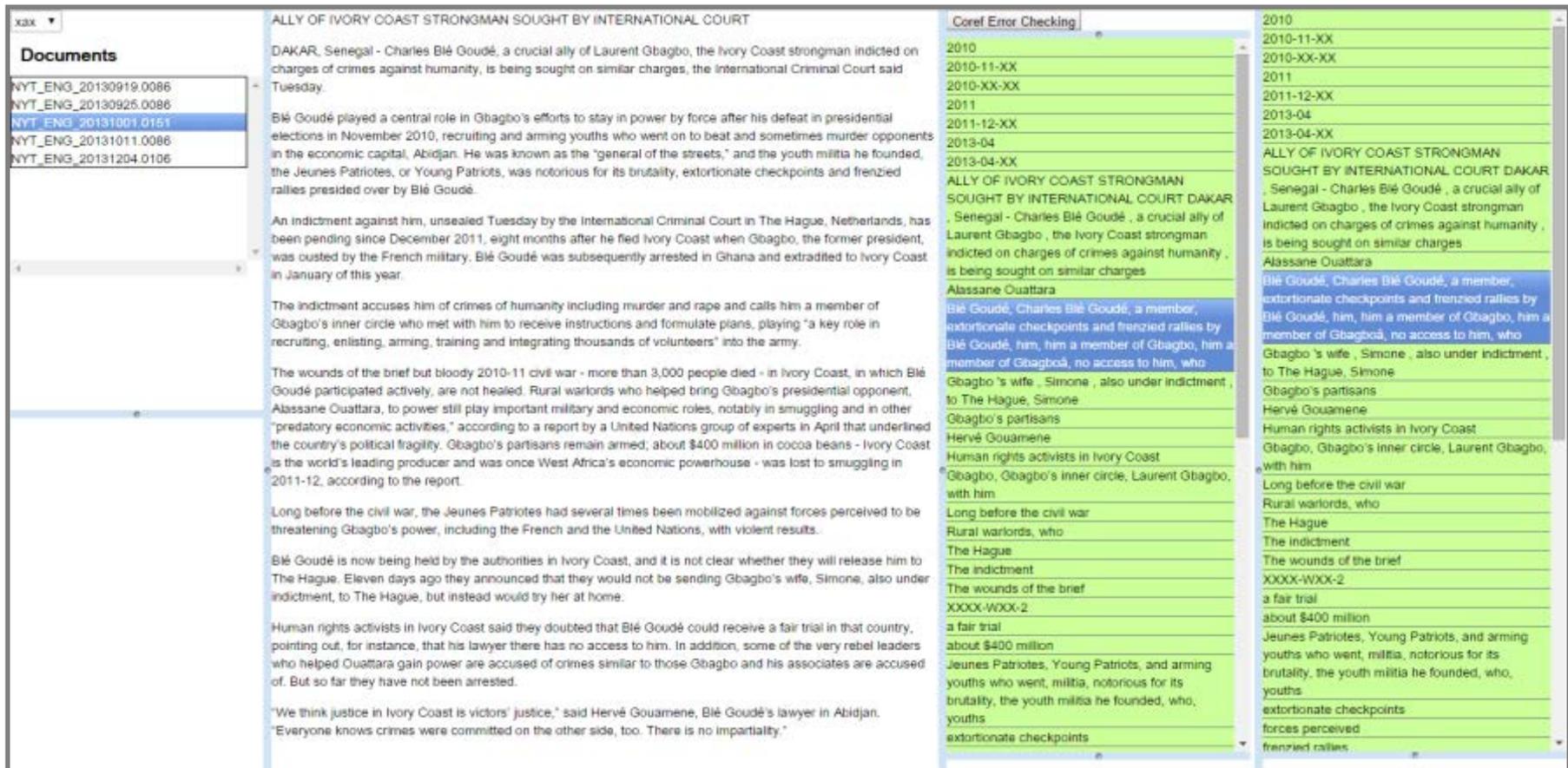
Justice.Charge-Indict
Person - Lance Barrett
Crime - first-degree attempted burglary
Crime - theft of a firearm
Crime - carrying a concealed weapon

Event Types		Arguments per Event Type	# of Event Types in range	% of Manual Run
<ul style="list-style-type: none"> • Conflict.Attack 385 • Life.Die 335 • Movement.Transport-Person 323 		>300	3	20%
<ul style="list-style-type: none"> • Justice.Sentence 298 • Personnel.End-Position 289 • Transaction.Transfer-Ownership 287 • Justice.Arrest-Jail 282 	<ul style="list-style-type: none"> • Contact.Meet 224 • Contact.Correspondance 212 • Justice.Trial-Hearing 210 • Transaction.Transfer-Money 207 	200-299	8	39%
<ul style="list-style-type: none"> • Personnel.Start-Position 197 • Justice.Convict 195 • Justice.Charge-Indict 190 • Justice.Sue 151 	<ul style="list-style-type: none"> • Conflict.Demonstrate 140 • Justice.Release-Parole 120 • Life.Injure 116 • Justice.Fine 110 	100-199	8	23%
<ul style="list-style-type: none"> • Justice.Extradite 99 • Justice.Appeal 87 • Justice.Acquit 85 • Life.Marry 85 • Personnel.Elect 83 • Personnel.Nominate 76 • Justice.Pardon 73 	<ul style="list-style-type: none"> • Manufacture.Artifact 73 • Justice.Execute 71 • Life.Divorce 66 • Business.Merge-Org 60 • Movement.Transport-Artifact 41 • Business.Declare-Bankruptcy 37 	<99	13	18%

- ◆ Tool developed and hosted by BBN
- ◆ Three stages
 - 1. Entity coreference
 - 2. Argument assessment
 - 3. Argument linking

◆ 1. Entity coreference

- Cluster entity mentions, including inexact and wrong



The screenshot displays a software interface for linguistic analysis. On the left, a 'Documents' panel lists several files with identifiers like 'NYT_ENG_20130919.0086'. The main window shows a document titled 'ALLY OF IVORY COAST STRONGMAN SOUGHT BY INTERNATIONAL COURT' with text about Charles Blé Goudé. On the right, a 'Coref Error Checking' panel shows a list of entity mentions and their coreference clusters. Some clusters are highlighted in blue, indicating errors or specific annotations.

Documents

- NYT_ENG_20130919.0086
- NYT_ENG_20130926.0086
- NYT_ENG_20131001.0151
- NYT_ENG_20131011.0086
- NYT_ENG_20131204.0106

ALLY OF IVORY COAST STRONGMAN SOUGHT BY INTERNATIONAL COURT

DAKAR, Senegal - Charles Blé Goudé, a crucial ally of Laurent Gbagbo, the Ivory Coast strongman indicted on charges of crimes against humanity, is being sought on similar charges, the International Criminal Court said Tuesday.

Blé Goudé played a central role in Gbagbo's efforts to stay in power by force after his defeat in presidential elections in November 2010, recruiting and arming youths who went on to beat and sometimes murder opponents in the economic capital, Abidjan. He was known as the "general of the streets," and the youth militia he founded, the Jeunes Patriotes, or Young Patriots, was notorious for its brutality, extortionate checkpoints and frenzied rallies presided over by Blé Goudé.

An indictment against him, unsealed Tuesday by the International Criminal Court in The Hague, Netherlands, has been pending since December 2011, eight months after he fled Ivory Coast when Gbagbo, the former president, was ousted by the French military. Blé Goudé was subsequently arrested in Ghana and extradited to Ivory Coast in January of this year.

The indictment accuses him of crimes of humanity including murder and rape and calls him a member of Gbagbo's inner circle who met with him to receive instructions and formulate plans, playing "a key role in recruiting, enlisting, arming, training and integrating thousands of volunteers" into the army.

The wounds of the brief but bloody 2010-11 civil war - more than 3,000 people died - in Ivory Coast, in which Blé Goudé participated actively, are not healed. Rural warlords who helped bring Gbagbo's presidential opponent, Alassane Ouattara, to power still play important military and economic roles, notably in smuggling and in other "predatory economic activities," according to a report by a United Nations group of experts in April that underlined the country's political fragility. Gbagbo's partisans remain armed; about \$400 million in cocoa beans - Ivory Coast is the world's leading producer and was once West Africa's economic powerhouse - was lost to smuggling in 2011-12, according to the report.

Long before the civil war, the Jeunes Patriotes had several times been mobilized against forces perceived to be threatening Gbagbo's power, including the French and the United Nations, with violent results.

Blé Goudé is now being held by the authorities in Ivory Coast, and it is not clear whether they will release him to The Hague. Eleven days ago they announced that they would not be sending Gbagbo's wife, Simone, also under indictment, to The Hague, but instead would try her at home.

Human rights activists in Ivory Coast said they doubted that Blé Goudé could receive a fair trial in that country, pointing out, for instance, that his lawyer there has no access to him. In addition, some of the very rebel leaders who helped Ouattara gain power are accused of crimes similar to those Gbagbo and his associates are accused of. But so far they have not been arrested.

"We think justice in Ivory Coast is victors' justice," said Hervé Gouamene, Blé Goudé's lawyer in Abidjan. "Everyone knows crimes were committed on the other side, too. There is no impartiality."

Coref Error Checking

- 2010
- 2010-11-XX
- 2010-XX-XX
- 2011
- 2011-12-XX
- 2013-04
- 2013-04-XX
- ALLY OF IVORY COAST STRONGMAN SOUGHT BY INTERNATIONAL COURT DAKAR
- Senegal - Charles Blé Goudé , a crucial ally of Laurent Gbagbo , the Ivory Coast strongman indicted on charges of crimes against humanity , is being sought on similar charges
- Alassane Ouattara
- Blé Goudé, Charles Blé Goudé, a member, extortionate checkpoints and frenzied rallies by Blé Goudé, him, him a member of Gbagbo, him a member of Gbagbo, no access to him, who
- Gbagbo 's wife , Simone , also under indictment , to The Hague, Simone
- Gbagbo's partisans
- Hervé Gouamene
- Human rights activists in Ivory Coast
- Gbagbo, Gbagbo's inner circle, Laurent Gbagbo, with him
- Long before the civil war
- Rural warlords, who
- The Hague
- The indictment
- The wounds of the brief
- XXXX-WXX-2
- a fair trial
- about \$400 million
- Jeunes Patriotes, Young Patriots, and arming youths who went, militia, notorious for its brutality, the youth militia he founded, who, youths
- extortionate checkpoints

2010

- 2010-11-XX
- 2010-XX-XX
- 2011
- 2011-12-XX
- 2013-04
- 2013-04-XX
- ALLY OF IVORY COAST STRONGMAN SOUGHT BY INTERNATIONAL COURT DAKAR
- Senegal - Charles Blé Goudé , a crucial ally of Laurent Gbagbo , the Ivory Coast strongman indicted on charges of crimes against humanity , is being sought on similar charges
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- The wounds of the brief
- XXXX-WXX-2
- a fair trial
- about \$400 million
- Jeunes Patriotes, Young Patriots, and arming youths who went, militia, notorious for its brutality, the youth militia he founded, who, youths
- extortionate checkpoints
- forces perceived
- frenzied rallies

◆ 2. Argument assessment

- **Event Type (ET):** Does justification support presence of event type?
- **Argument Role (AR):** Does justification support some filler for the role?
- **Base Filler (BF):** Is the base filler correct for the specified ET and AR?
- **Canonical Argument String (CAS):** Is the CAS correct for the specified ET and AR? Is the CAS coreferential with or proved by the base filler?
- **Realis:** Actual, Generic, Other
- **Mention Type:** Is the CAS a name or nominal?

Documents

- NYT_ENG_20130919.0086
- NYT_ENG_20130925.0086
- NYT_ENG_20131001.0151
- NYT_ENG_20131011.0086
- NYT_ENG_20131204.0106

Assessment Error Checking

Type [c, w, l, x]	Role [c, w, l, x]	Base Filter [c, w, l, x]	CAS [c, w, l, x]	Realis [a, g, o]	Mention Type [n, d]
CORRECT	CORRECT	INEXACT	CORRECT	Actual	NAME

(Conflict.Attack: Attacker, Charles Blé Goudé)

opponents in the economic capital, Abidjan.... Blé Goudé was subsequently arrested in Ghana and extradited to Ivory Coast in January of this year. The indictment accuses *him of crimes of humanity including murder and rape and calls him a member of Gbagbo's inner circle who met with him to receive instructions and formulate plans, playing "a key role in recruiting, enlisting, arming, training and integrating thousands of volunteers" into the army.* The wounds of the brief but bloody 2010-11 civil war - more than 3,000 people died - in Ivory Coast, in

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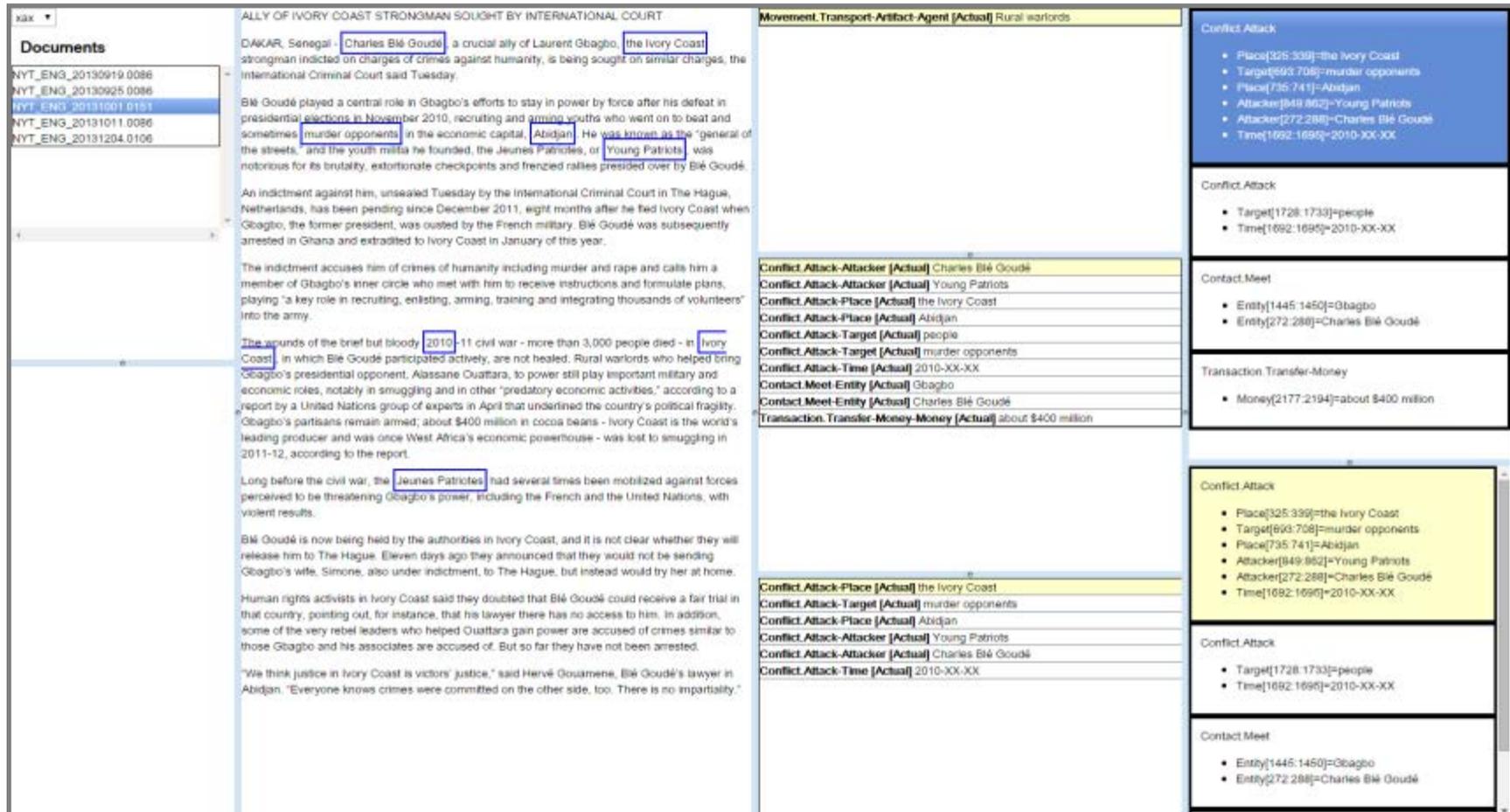
Blé Goudé played a central role in Gbagbo's efforts to stay in power by force after his defeat in presidential elections in November 2010, recruiting and arming youths who went on to beat and sometimes murder opponents in the economic capital, Abidjan. He was known as the "general of the streets," and the youth militia he founded, the Jeunes Patriotes, or Young Patriots, was notorious for its brutality, extortionate checkpoints and frenzied rallies presided over by Blé Goudé.

An indictment against him, unsealed Tuesday by the

Assessment: correct (c); wrong (w); inexact (i); NIL (x); next (period); previous (comma); response order toggle (z)
Realis: actual (a), generic (g), other (o). **Mention type:** name (n), nominal (d)
Enter advances to the next response if the current response is complete. **Coref:** merge (m); split (s); mark singleton (1); unsingleton (2); toggle split window (*delete*). Untouched CASes are bold.
Response navigation: Previous (comma); Next (period)
 You may not leave a response which is incomplete. You may not leave a document unless all its responses are completely annotated and all CASes are touched.
Display: Hide coref panes (h); Hide cheat sheet (l)

◆ 3. Argument linking

- Following QC, senior annotators group arguments into event hoppers



The screenshot displays a linguistic analysis interface with three main panels:

- Documents Panel (Left):** Lists document identifiers such as `NYT_ENG_20130919.0086`, `NYT_ENG_20130925.0086`, `NYT_ENG_20131001.0191`, `NYT_ENG_20131011.0086`, and `NYT_ENG_20131204.0106`.
- Main Text Panel (Center):** Contains the article text "ALLY OF IVORY COAST STRONGMAN SOUGHT BY INTERNATIONAL COURT" with various entities and relationships highlighted in blue boxes. The text discusses Laurent Gbagbo, Charles Blé Goudé, and the Jeunes Patriotes in Ivory Coast.
- Event Hoppers Panel (Right):** A vertical list of event hoppers, each with a title and a list of arguments.
 - Movement.Transport-Artifact-Agent [Actual] Rural warlords**
 - Conflict.Attack**
 - Place[325:339]=the Ivory Coast
 - Target[693:708]=murder opponents
 - Place[735:741]=Abidjan
 - Attacker[849:862]=Young Patriots
 - Attacker[272:288]=Charles Blé Goudé
 - Time[1692:1695]=2010-XX-XX
 - Conflict.Attack**
 - Target[1728:1733]=people
 - Time[1692:1695]=2010-XX-XX
 - Contact.Meet**
 - Entity[1445:1450]=Gbagbo
 - Entity[272:288]=Charles Blé Goudé
 - Transaction.Transfer-Money**
 - Money[2177:2194]=about \$400 million
 - Conflict.Attack**
 - Place[325:339]=the Ivory Coast
 - Target[693:708]=murder opponents
 - Place[735:741]=Abidjan
 - Attacker[849:862]=Young Patriots
 - Attacker[272:288]=Charles Blé Goudé
 - Time[1692:1695]=2010-XX-XX
 - Conflict.Attack**
 - Target[1728:1733]=people
 - Time[1692:1695]=2010-XX-XX
 - Contact.Meet**
 - Entity[1445:1450]=Gbagbo
 - Entity[272:288]=Charles Blé Goudé

- ◆ We found that starting with coreference makes non-identity clustering difficult
 - Referents interpreted more strictly in isolation than as arguments to events
 - e.g. “in a ceremony in front of a fountain in Central Park” vs. “in front of a fountain in Central Park”
 - In isolation, clearly different things
 - When both returned as locations for a wedding, a forgiving clustering makes sense
 - Assessment informs annotator of usage (i.e. Argument Role)

Track	Precision	Recall	F1
2014 EA Extraction	76%	28%	41%
2015 EA Linking (preliminary)	76%	40%	52%

- ◆ 60 minute limit per document
 - Time limit negatively impacts recall
 - 3.5 hours for comparable ERE document
- ◆ Improvement in recall from 2014
 - 30 minute limit in 2014

- ◆ Goal: measure system performance in detecting and coreferencing references to events in text
- ◆ Adapted from a 2014, DEFT-internal pilot evaluation
 - Incorporated many key components of LDC's Rich Entities, Relations, and Events annotation task (ERE).

- ◆ Triggers
 - Textual extent indicating a reference to a valid event
 - Redefined as the smallest, contiguous extent of text (usually a word or phrase) that most saliently expresses the occurrence of an event
- ◆ Double tagging of triggers allowed
 - Indicates a text extent referring to more than one event
 - Often indicates presence of inferred events

◆ Additional event type - *Manufacture*

- “Robert Mericle, who had [built] two for-profit detention centers, and a businessman named Robert Powell paid the judges almost \$3 million over a three-year period to help smooth the way for the [construction] of the facilities.”
- “built” – *Manufacture.Artifact* - ACTUAL
- “construction” – *Manufacture.Artifact* – ACTUAL

◆ Additional event subtypes:

- *Movement.TransportArtifact*
- *Contact.Broadcast*
- *Contact.Contact*
- *Transaction.Transaction*

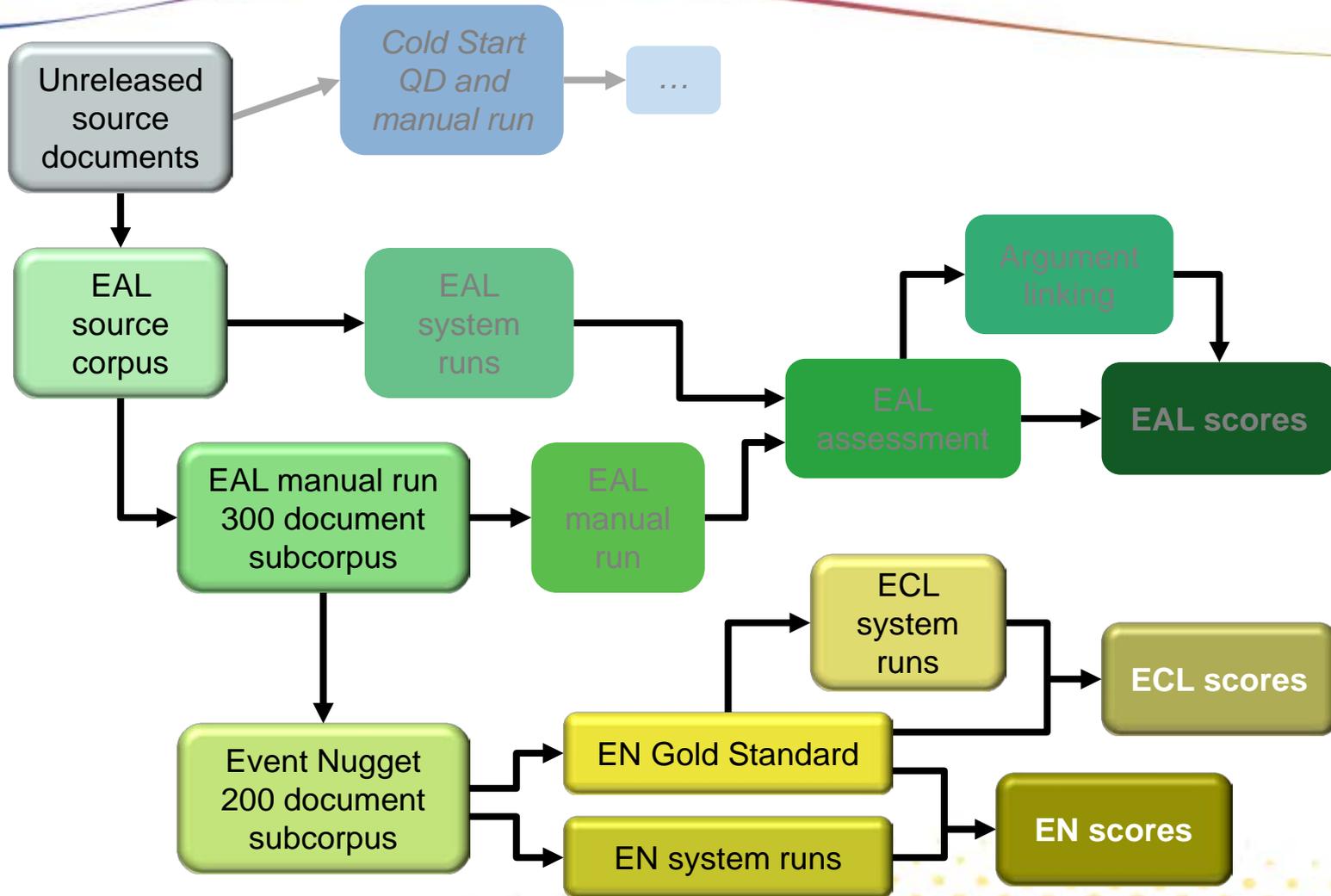
Event Nugget: Changes from 2014 Pilot

- ◆ New approach for applying *Contact* event subtype categorizations
 - Event mentions labeled with attributes
 - Subtypes automatically generated based on the applied attributes

Category	Attribute 1	Attribute 2
Formality	Formal	Informal
Scheduling	Planned	Spontaneous
Medium	In person	Not in person
Audience	Two way	One way

Contact.Meet	Contact.Correspondence	Contact.Broadcast	Contact.Contact
In Person	Not in Person	One way	[none]
Two way	Two way		

- ◆ Event Coreference
 - Adopted ‘Event Hoppers’ notion from ERE
 - A more inclusive, lenient notion of event coreference
 - Event mentions are placed in the same hopper -- that is, coreferred -- when they are:
 - Intuitively the same event
 - Same event type
- ◆ Given level of changes to task, CMU and LDC jointly developed training data
 - Re-annotated data developed for pilot



- ◆ 200 document subset of those used in EAL evaluation
- ◆ Down selection from 300 to 200 based on token count
 - Smaller documents preferred
 - Balancing of genres and event types also considered

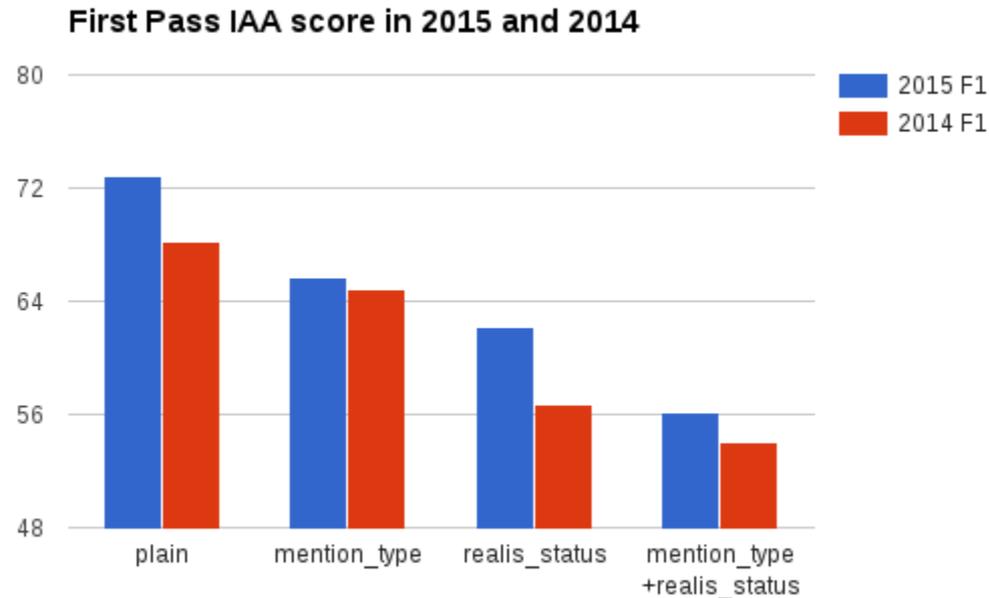
- ◆ EN Gold Standard
 - Target all unique event nuggets referring to an event, following the ERE rules
 - Place nuggets into event hoppers

Lance Barrett, 23, of London, KY, was charged with first-degree attempted burglary, theft of a firearm, and carrying a concealed weapon.

“charged” – Justice.Charge-Indict - ACTUAL
“burglary” – Transfer.Ownership - OTHER
“theft” – Transfer.Ownership - OTHER
“carrying” – Transport.Artifact - OTHER

- ◆ Double blind first passes with adjudication
 - In order to closely monitor annotation consistency
 - IAA had proven problematic in the pilot evaluation and similar previous annotation tasks
- ◆ Quality control also conducted after adjudication
 - Manual scan of:
 - Triggers
 - Event types and subtypes
 - Realis

- ◆ Annotation consistency improved compared to pilot
 - Aligning with ERE
 - New approach to Contact event subtype tagging
- ◆ Still room for improvement though



Event Nugget: Data Volume

	Genre	Files	Words	Nuggets	Hoppers
Totals	NW/DF	360	213,673	12,976	7,460
Training	NW	81	27,897	2,219	1,461
Training	DF	77	97,124	4,319	1,874
Evaluation	NW	98	49,319	3,788	2,440
Evaluation	DF	104	39,333	2,650	1,685

Catalog ID	Corpus Title	Size
LDC2015E41	TAC KBP 2015 English Event Argument Linking Training Data	9927 assessments
LDC2015E79	TAC KBP 2015 English Event Argument Linking Evaluation Source Corpus	500 documents
LDC2015E92	TAC KBP 2015 English Event Argument Linking Evaluation Manual Run	5207 arguments
LDC2015E101	TAC KBP 2015 English Event Argument Linking Evaluation Assessment Results V2.0	>7,869 assessments
LDC2015E73	TAC KBP 2015 Event Nugget Training Annotation	6538 nuggets
LDC2015E94	TAC KBP 2015 Event Nugget and Event Coreference Linking Evaluation Source Corpus	202 documents
LDC2015R26	TAC KBP 2015 Event Nugget and Event Coreference Linking Evaluation Gold Standard Annotation Corpus	6438 nuggets