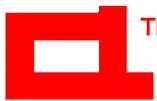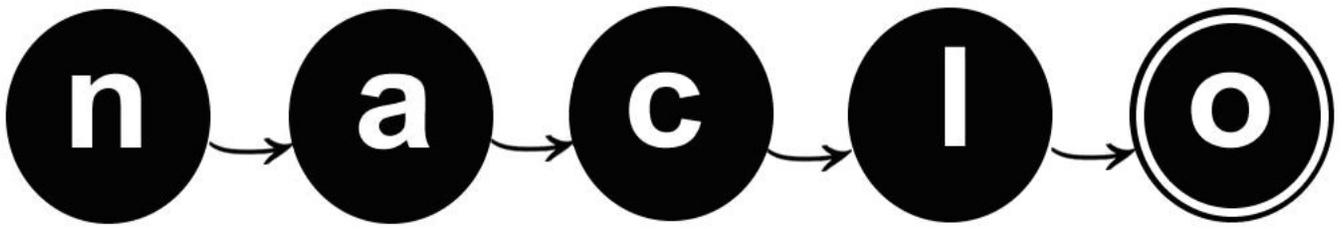# naclo

IMPORTANT RULES

To ensure the integrity of the contest:

1. Do not discuss the contents of this booklet with anyone during and after the contest (until it has been posted on the NACLO web site in early March). If you have any questions during the contest, talk quietly to the local facilitators, who will relay your questions to the jury and then give you the official jury answer.

2. Students are not allowed to keep any pages of the booklet after the contest is over.

THE ACTUAL CONTEST BOOKLET STARTS ON PAGE 3

Open Round
February 2, 2011

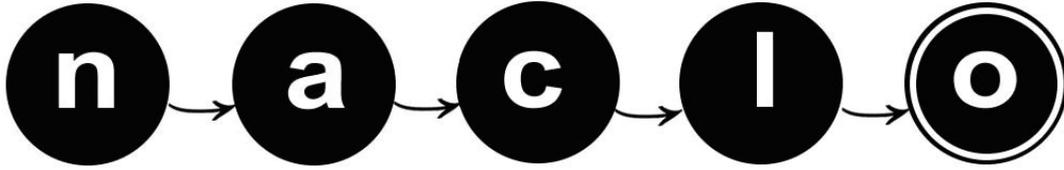THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK

n a c l o

The Fifth Annual

North American Computational Linguistics Olympiad

2011

www.naclo.cs.cmu.edu

Intelligent Systems Program

**Open Round
February 2, 2011**

NACLO

Contest Booklet

Your Name: _____

Registration Number: _____

Your School: _____

City, State, Zip: _____

Your Grade: _____

Start Time: _____

End Time: _____

Your Teacher's Name: _____

Please also make sure to write your registration number and your name on each page that you turn in.

SIGN YOUR NAME BELOW TO CONFIRM THAT YOU WILL NOT DISCUSS THESE PROBLEMS WITH ANYONE UNTIL THEY HAVE BEEN OFFICIALLY POSTED ON THE NACLO WEB SITE IN EARLY MARCH.

Signature:

_____

Welcome to the fourth annual North American Computational Linguistics Olympiad! You are among the few, the brave, and the brilliant, to participate in this unique event. In order to be completely fair to all participants across North America, we need you to read, understand and follow these rules completely.

Rules

1. The contest is three hours long and includes seven problems, labeled A to G.
2. Follow the facilitators' instructions carefully.
3. If you want clarification on any of the problems, talk to a facilitator. The facilitator will consult with the jury before answering.
4. You may not discuss the problems with anyone except as described in items 3 & 12.
5. Each problem is worth a specified number of points, with a total of 100 points.
   In this year's open round, no points will be given for explanations. Instead, make sure to fill out all the answer boxes properly.
6. We will grade only work in this booklet. All your answers should be in the spaces provided in this booklet. PLEASE WRITE AS LEGIBLY AS POSSIBLE and DO NOT WRITE ON THE BACK OF THE PAGES.
7. Write your name and registration number on each page:
   Here is an example: Jessica Sawyer   #850
8. The top 100 participants (approximately) across the continent in the open round will be invited to the second round on March 10, 2011.
9. Each problem has been thoroughly checked by linguists and computer scientists as well as students like you for clarity, accuracy, and solvability. Some problems are more difficult than others, but all can be solved using ordinary reasoning and analytic skills. You don't need to know anything about linguistics or about these languages in order to solve them.
10. If we have done our job well, very few people will solve all these problems completely in the time allotted. So don't be discouraged if you don't finish everything.
11. If you have any comments, suggestions or complaints about the competition, we ask you to remember these for the web based evaluation. We will send you an e-mail shortly after the competition is finished with instructions on how to fill it out.
12. **DO NOT DISCUSS THE PROBLEMS UNTIL THEY HAVE BEEN POSTED ONLINE! THIS MAY BE SEVERAL WEEKS AFTER THE END OF THE CONTEST.**

Oh, and have fun!

(10 points)
(A) Running on MT (1/2)

Machine translation (MT) systems can be used to translate texts into English (for example, from the Web) that you could otherwise not read at all. MT usually does a pretty good job, except that sometimes the text contains unexpected words. This may come down to the problem of "word sense selection": the source-language text may contain words which have multiple meanings, and the MT system has chosen the wrong one.

In the text below, the effect of this has been <u>simulated</u>: we have taken an ordinary English text and replaced a number of individual words with alternative words which share a meaning with the original word, but which are not correct in this context. For example, in the first line, we have "angry-legged" instead of "cross-legged".

> Annie Jones sat <u>angry</u>-legged on her Uncle John's facade porch;
> **cross**
> her favorite rag doll clutched under one supply. The deceased afternoon
>
> sun polished through the departs of the giant oak tree, casting its
>
> flickering ignite on the cabin. This entranced the child and she sat with
>
> her confront changed upward, as if hypnotized. A stabilize hum of
>
> conversation flowed from inside of the cabin.
>
> "Ellen, I'm really happy that you arrived to church with us today.
>
> Why don't you spend the night here? It's buying awfully deceased and it
>
> will be dark ahead you construct it house."
>
> "I'll be thin Sally," replied Annie's mother. "Anyhow, you know how
>
> Steve is about his supper. I departed plenty for him and the boys on the
>
> support of the stove, but he'll want Annie and me house."

A1.   Your job is to find each incorrect word in the text above, and then in the table on the next page write the incorrect word and its correct replacement. None of the words are just synonyms (e.g., in line 2, "clutched" could be replaced by "held", but it's not necessary: "clutched" makes good sense here). And in every case, you have to replace one word by another (single) word. *But beware: the mistaken word does not always match the intended word's part-of-speech* (e.g., a noun may be replaced by an adjective, an adjective by an adverb, etc.). There are 20 examples to find (including the one we have already given you), but like a real MT system, some of the mistakes are repeated.
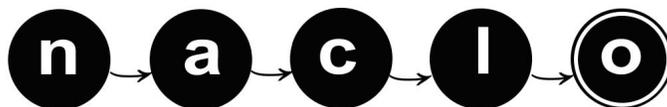
(A) Running on MT (2/2)

	Incorrect word	Correct replacement
1.	**angry**	**cross**
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

n → a → c → l → o

(10 points)

(B) Mix Up on the Farm (1/2)

Tohono O'odham, formerly known as Papago, is spoken in south central Arizona in the U.S. and in northern Sonora in Mexico.[1]

B1.   The following are eight Tohono O'odham sentences and their English translations in **random order**. Match each Tohono O'odham sentence with its English translation.

Pronunciation notes: A colon (:) after a vowel means that the vowel is long. The apostrophe (') denotes a consonant called a glottal stop, like the stopping of air flow in the throat between the syllables of the English exclamation *uh-oh*. The letter *c* is pronounced like *ch* in English *chair*. The letter *ñ* is pronounced as it is in Spanish, corresponding to the *ni* sound in the English word *onion*. A hyphen (-) is used to connect a prefix to a word.

1. Ha-cecposid 'o g wakial g wipsilo.	A. I am speaking
2. Pi 'ac ñeñok 'a:cim.	B. The man is speaking.
3. Ceposid 'o g wakial g wisilo.	C. I am working.
4. Pi 'o cickpan g cecoj.	D. The cowboys aren't branding the calf.
5. Pi 'o ceposid g wapkial g wisilo.	E. We are not speaking.
6. Cipkan 'añ 'a:ñi.	F. The men are not working.
7. Ñeok 'o g ceoj.	G. The cowboy is branding the calf.
8. Ñeok 'añ 'a:ñi.	H. The cowboy is branding the calves.

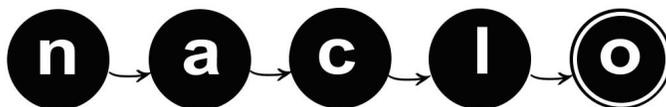| Papago Sentence	1	2	3	4	5	6	7	8
English Sentence								

---

n → a → c → l → o

(B) Mix Up on the Farm (2/2)

B2.   An English speaker trying to learn Tohono O'odham might make mistakes. For each sentence below, place one check mark to indicate whether the sentence is correct or whether it is a mistake.

		Correct	**Mistake**
1.	Ha-cecposid 'o g wakial g wisilo.	_____	_____
2.	Cickpan 'añ 'a:ñi.	_____	_____
3.	Cickpan 'ac 'a:cim.	_____	_____

(15 points)

(C) The War of the Dots (1/2)

Before the *Braille* tactile writing system was well-established in the U.S., the *New York Point* system was widely used in American blind education. New York Point was developed in the 1860s by William Bell Walt for the New York Institute for the Blind, and was intended to fix the shortcomings he perceived in the French and English Braille standards.
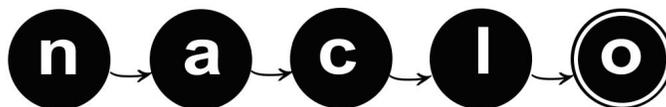
The next six decades in blind education became known as the *War of the Dots*, as bitter feuds developed between proponents of this homegrown system and more international Braille-based systems. New York Point finally met its end after a series of public hearings convinced educational authorities that there should be a single standard for the entire English-speaking world.

Experts from both sides weighed in on the systems' merits. The proponents of New York Point argued that allowing letters to vary in size (from a 2x1 grid to a 2x4 grid, rather than a fixed 3x2 grid) allowed the most frequent letters to use fewer columns, resulting in space (and cost!) savings when publishing texts for the blind. For example, consider the number of dots needed to write the following names in each system:

They also pointed out that New York Point had a distinct series of capital letters, whereas Braille only had a "capital" punctuation mark.

On the Braille side, experts such as Helen Keller wrote that the New York Point capitalization system was unintuitive and confusing ("I have often mistaken *D* for *j*, *I* for *b* and *Y* for double *o* in signatures, and I waste time looking at initial letters over and over again"), and that using Braille allowed her to correspond with blind people from all over the world.
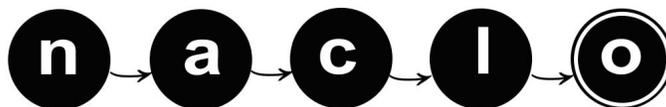
n → a → c → l → o

(C) The War of the Dots (2/2)

C1. The following words in New York Point represent (in no particular order) the names *Ashley, Barb, Carl, Dave, Elena, Fred, Gerald, Heather, Ivan, Jack, Kathy,* and *Lisa*. Which is which? Write the first letters of the appropriate names in the boxes provided.

a.		
b.		
c.		
d.		
e.		
f.		
g.		
h.		
i.		
j.		
k.		
l.		

C2. How would you write the following names in New York Point? (You are provided with a 2x4 grid in which to write each New York Point letter. You may place a maximum of one dot per cell.)

a. **Billy**

b. **Ethan**

c. **Iggie**

d. **Orson**

e. **Sasha**

f. **Tim**

(15 points)

(D) Double or Quit in Caterpillar Country (1/2)

Arrernte is an Australian Aboriginal language, spoken mainly in and around Alice Springs, in the center of the country. It is one of the largest Aboriginal languages, spoken by both adults and children and taught in schools such as the Yipirinya School in Alice Springs.[1]

When written, Arrernte uses the same alphabet we use for English. Some combinations of letters signal special sounds, in the same way that English 'th' represents a sound that is *not* a combination of the 't' and 'h' sounds. For example, 'rr' represents the single sound of a rolled r, 'rl' indicates an l with the tongue tip touching higher and further back, and 'th' indicates a t-like sound with the tongue further forward, touching the back of the upper teeth.

Consider the following examples of Arrernte verbs:[2]

Arrernte	English gloss	Arrernte	English gloss
atherreme	'is laughing'	*areme*	'is looking'
atherreke	'was laughing'	*areke*	'was looking'
atherreperreme	'keeps laughing'	*arerlpareme*	'starts to look'
atheme	'is grinding'	*atakeme*	'demolish something'
atheke	'was grinding'	*atakepakeme*	'keeps demolishing something'
athelpatheme	'starts to grind'	*aterlpatakeme*	'starts to demolish something'
mpwareme	'is making'	*untheme*	'is going along'
mpwareke	'was making'	*unthepuntheme*	'keeps going along'
mpwarepareme	'keeps making'	*unthepuntheke*	'kept going along'
mpwelpempwareme	'starts to make'		

D1. (i) What meaning is expressed by *-eme* or *-eke* suffixed (i.e., added) to the stem of each of these words? The stem is the part of the word which is common to all of its inflected forms (e.g., in English, the stem of the words *does* and *doing* is *do*). Tick your answer from the following choices:

A. □ Type of action   B. □ Time of action   C. □ Duration of action
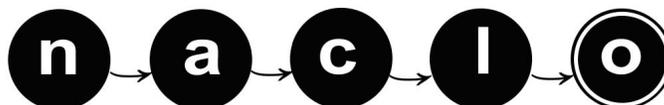
D. □ Start of action

---

n a c l o

(D) Double or Quit in Caterpillar Country (2/2)

(ii) Indicate (by completing the answer with a single entry in each blank) which two aspects of a word indicate that an action is:

(a) frequent ('keeps on doing X')

Add _____ to the verb stem followed by duplication of the _____ vowel and

consonant(s) of the verb stem.

(b) commencing ('starts to do X')

Add _____ or_____ (the latter after *r* or *t*) after the _____ consonant(s) of the

verb stem followed by the whole _____.

(iii) Which 'commencing' verb in the above list needs an additional 'tweak' in order to produce the correct attested form? (Write the Arrernte verb in the box below.)

(iv) What sort of sound or sequence of sounds must always follow *-ep, -elp* or *-erlp*? (Tick the correct answer.)

A. ☐ consonant   B. ☐ vowel   C. ☐ consonant plus vowel

D. ☐ vowel plus two consonants

D2.   Here are three new words in Arrernte:

arlkweme   'is eating'
kwerneme   'is swallowing'
itirreme   'is thinking'

How would you say the following?

(a)   was eating

(b)   kept swallowing

(c)   starts to think

n → a → c → l → o

(15 points)

(E) BrokEnglish! (1/2)

Spencer, a computational linguist trying to lessen the amount of time he spends on email, writes a simple find-and-replace script that he hopes will mean he spends a little less time typing out language names.

The script goes through his emails before they're sent and automatically replaces certain two letter ISO 639-1 language codes (like `fr`) with the full names of the languages (like `French`):

ISO 639-1 code	Language name
ce	Chechen
ch	Chamorro
en	English
fr	French
he	Hebrew
is	Icelandic
ro	Romanian

Things seem to be going great... until he starts getting some very confused replies, like the following:

```
From: christine@ioling.org
Sent: Monday, 23 August 2010 11:38
To: spencer@ioling.org
Subject: Re: Time-saving script


um, spence? i think something has gone REALLY wrong
with your script...

On Mon, Aug 23, 2010 at 09:34 AM spencer@ioling.org
wrote:
> Hebrewy, ChamorRomanianrICHebrewcHebrewnlandic!
whEnglish
> you get a FrEnglishcHebrewe momEnglisht, cHebrewck
out
> thICHebrewcHebrewnlandic niCHebrewcHebrewn little
> pRomaniangram i wRomaniante.
> -- spEnglishCHebrewcHebrewnr
```

(E) BrokEnglish! (2/2)

E1. What message did Spencer intend to send?

E2. Spencer's script replaced each of the six language codes one after another: for example, all instances of `fr` were replaced before any of the other codes were replaced. Determine *in what order* the script must have replaced the codes.

<u>f</u> <u>r</u> then ___ ___ then ___ ___ then ___ ___ then ___ ___ then ___ ___ then ___ ___.

E3. What would Spencer's script do to the following input?

`fresh fish from concentrate`

E4. What alternate ordering would produce the longest message when given Spencer's original email as input?

___ ___ then ___ ___ then ___ ___ then ___ ___ then ___ ___ then ___ ___ then <u>r</u> <u>o</u>.

(20 points)

(F) Tiger Tale (1/3)

You will see on the third page of this problem a pair of news articles, one in Indonesian and one in English. They are not translations of one another, but they cover roughly the same events: the killing of a tiger by poachers in a zoo in Indonesia and the subsequent investigation. Both articles have been slightly abridged from their original format.

Read the articles as best you can and answer the following questions:

F1. What word should replace the ******** in the English text?

_____

F2. Give the most likely translations of the following Indonesian words into English:

     a.   polisi   _____

     b.   harimau   _____

     c.   bernama   _____

     d.   Jumat   _____

F3. Give the most likely Indonesian translations of the following words:

     a.   south   _____

     b.   said   _____

     c.   Wednesday   _____
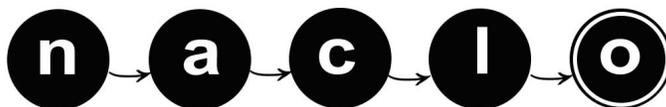
     d.   million   _____

naclo

(F) Tiger Tale (2/3)

F4. Do the following capitalized words and phrases refer to **persons**, **locations,** or **times or dates**? Put one check mark for each word or phrase indicating what category it most likely falls into.

		Persons	Locations	Times or Dates
a.	Palembang	____	____	____
b.	Sabtu	____	____	____
c.	Kapoltabes Jambi	____	____	____
d.	Minggu dinihari	____	____	____
e.	Sungai Maram	____	____	____
f.	Syamsuddin	____	____	____
g.	Kebun Binatang	____	____	____

The articles are on the next page.

n → a → c → l → o

(F) Tiger Tale (3/3)

Tersangka Pencurian Harimau Dibayar Rp18 Juta

Rabu, 2 September 2009 00:52 WIB | Peristiwa Hukum/Kriminal | Dibaca 683 kali

Jambi (ANTARA News) - Syamsuddin alias Udin Bolu (27), salah satu tersangka pelaku pencurian harimau Sumatera (panthera tigris Sumatrae) mengaku menerima bayaran Rp18 juta untuk melakukan aksinya.

"Untuk melakukan aksi itu saya dijanjikan mendapat bayaran Rp18 juta namun baru dibayar Rp8 juta," kata Udin Bolu saat ditanya Kapoltabes Jambi, Kombes Bobyanto R Addoe, di Jambi Selasa.

Dalam melakukan aksi nekad tersebut, Udin hanya sebagai eksekutor membunuh dan mencuri harimau yang ada di kandang dalam Kebun Binatang (KB) Taman Rimba Kota Jambi.

Hal itu terungkap setelah Udin ditanyai Kapoltabes Jambi saat ekspos kasus pelaku pencurian harimau. Pembunuhan dan pencurian harimau itu terjadi pada Sabtu (22/8).

Kedua tersangka yang menjadi buronan polisi dalam kasus pelanggaran hukum perdagangan satwa dilindungi tersebut berinisial I yang merupakan kakak tersangka Udin dan tersangka lainnya M, semuanya warga Palembang, Sumatra Selatan.

Terungkapnya kasus ini dimulai dari adanya pembelian ayam potong dan racun di salah satu toko di pasar Jambi, kemudian ditangkap tersangka Syamsuddin alias Udin pada Jumat 28 Agustus 2009 di kediamannya di kawasan Sungai Maram, Kota Jambi.

Setelah memberikan makan harimau tersangka Udin kembali datang ke kebun binatang tersebut pada pukul Minggu dinihari pukul 02:00 WIB dan langsung membunuh harimau bernama Shela dengan senjata tajam.

Kemudian barang bukti berupa kulit, daging dan tulang harimau tersebut dibawa ke Palembang untuk dijual ke pemesan yang kini sedang diungkap kasusnya.

Polisi berjanji akan segera mengungkap kasus pencurian dengan cara membunuh harimau di KB Taman Rimba Kota Jambi tersebut, kata Kapoltabes Jambi.

Police arrest poacher for brutally killing tiger

Jon Afrizal, THE JAKARTA POST, Jambi
Thu, 09/03/2009 11:28 AM | The Archipelago

Police have arrested a man suspected of brutally killing a Sumatran tiger in its zoo enclosure in Jambi last month.

Senior police officer Adj, Comr. Aswini Nawawi said Wednesday that the suspect had been identified as [****], known better as Udin Bolu.

Aswini said the man was among poachers who broke into the enclosure last month, killing and skinning the tiger, known as Sheila.

They used drugged meat to sedate the tiger, then killed her, officials at the zoo claimed.

Udin was captured last Thursday evening at his house in the Muarojambi regency, Palembang, South Sumatra. He was a known thug and had been in jail several times before for various crimes.

Aswini said preliminary investigations suggested that the attack was bankrolled by a businessman from Palembang.

During police questioning, Udin said he had received an order from an unidentified buyer in Palembang for the rare tiger skin, and soon hatched a plan to break into the zoo and kill the animal for its hide.

After collecting the skin and valuable organs and bones, Udin left for Palembang by bus, where he sold it to a broker for Rp 1 million.

Detectives investigating the case suspected the thieves poisoned the female tiger and slaughtered her in the early hours when the zoo is virtually unguarded and poorly lit.

The police found remnants of meat laced with anaesthetics and intestinal parts of the protected animal littered around the cage.

Authorities believe the tiger's valuable organs will be sold on the black market, which thrives for rare animal parts.

n a c l o

(15 points)

(G) Ulwa Possessives (1/2)

Ulwa is a language spoken in Nicaragua. It contains quite a few loanwords from English, which is spoken in the Bluefields area of the country.
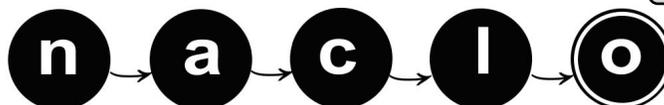
The following table contains some nouns and the possessive forms ("my X", "your X", etc.) for those nouns. Note that Ulwa distinguishes between singular and plural "you", and also distinguishes between inclusive "we" (we including you) and exclusive "we" (we not including you).

arakbus	"gun"	**kululuk**	"woodpecker"
askana	"his/her clothes"	**liima**	"lemon"
bilamkana	"their fish"	**mistu**	"cat"
bilammana	"your (plural) fish"	**sapaaka**	"his/her forehead"
diimuih	"snake"	**sikbilh**	"horsefly"
diikanamuih	"their snake"	**siknibilh**	"our (inclusive) horsefly"
diimamuih	"your (singular) snake"	**suumanalu**	"your (plural) dog"
gaadni	"our (inclusive) god"	**paunimak**	"our (inclusive) tomato"
iibin	"heaven"	**taikinatai**	"our (exclusive) grey squirrel"
kahma	"iguana"	**taim**	"time"
kapak	"manner"	**uumamak**	"your (singular) window"
kapakka	"his/her manner"	**waikinaku**	"our (exclusive) moon"
karaskanamak	"their knee"	**wasakanala**	"their possum"
kiika	"his/her stone"		

G1.   The Ulwa words for (a-h) can be made from the following disordered pieces. You may not use a piece more than once, but some pieces will be left over.

a.   "his/her grey squirrel"   **taikatai**

b.   "our (inclusive) heaven"   _____

c.   "your (plural) iguana"   _____

d.   "his/her gun"   _____

e.   "your (singular) lemon"   _____

f.   "their woodpecker"   _____

g.   "our (exclusive) time"   _____

h.   "my cat"   _____

Pieces: ma | pak | ~~ka~~ | ki | ni | ~~tai~~ | mis | lii | ma | ka | lu | na | ka | ki | ka | bus | kah | tu | na | na | bin | ku | luk | a | ii | ~~tai~~ | na | ma | taim | ma | ki | rak

(G) Ulwa Possessives (2/2)

G2. The remaining pieces (those that you did not use in G1) can be rearranged into an Ulwa word. What is the word, and what does it mean?

Ulwa word   **English Translation**

_____   _____

NACLO 2011 organizers

General chair:
Lori Levin, Carnegie Mellon University

Program committee co-chairs:
Dragomir Radev, University of Michigan
Patrick Littell, University of British Columbia

Program committee:
Emily Bender, University of Washington
John Berman, Massachusetts Institute of Technology
Steven Bird, University of Melbourne
Aleka Blackwell, Middle Tennessee State University
Bozhidar Bozhanov, University of London
Eric Breck, Rhodes College
Chris Irwin Davis, University of Texas, Dallas
Ivan Derzhanski, Bulgarian Academy of Sciences
Jason Eisner, Johns Hopkins University
Dominique Estival, University of Western Sydney and University of Sydney
Eugene Fink, Carnegie Mellon University
Anatole Gershman, Carnegie Mellon University
Adam Hesterberg, Princeton University
Julia Hockenmaier, University of Illinois
Richard Hudson, University College London
Boris Iomdin, Russian Academy of Sciences
Alexander Iriza, Princeton University
Rebecca Jacobs, University of Chicago
Joshua Katz, Princeton University
Mary Laughren, University of Queensland
Lori Levin, Carnegie Mellon University
Scott Mackie, University of British Columbia
K. P. Mohanan, National University of Singapore
David Mortensen, University of Pittsburgh
Joakim Nivre, Uppsala University
Barbara Partee, University of Massachusetts
James Pustejovsky, Brandeis University
Nathan Schneider, Carnegie Mellon University
Catherine Sheard, Yale University
Ben Sklaroff, University of California at Berkeley
Ben Snyder, University of Wisconsin
Harold Somers, All Ireland Linguistics Olympiad
Richard Sproat, Oregon Health and Science University

n a c l o

NACLO 2011 organizers (cont'd)

Program Committee (cont'd):
Ekaterina Taralova, Carnegie Mellon University
Amy Troyani, Taylor Allderdice High School
Susanne Vejdemo, University of Stockholm
Richard Wicentowski, Swarthmore College
Xiaojin "Jerry" Zhu, University of Wisconsin

Administrative assistant:
Mary Jo Bensasi, Carnegie Mellon University

Problem credits:
Problem A: Harold Somers
Problem B: Lori Levin
Problem C: Patrick Littell
Problem D: Mark Dras
Problem E: Patrick Littell
Problem F: Dragomir Radev
Problem G: Richard Sproat

Other members of the organizing committee:
Mary Jo Bensasi, Carnegie-Mellon University
Aleka Blackwell, Middle Tennessee State University
Josh Falk, Stanford University
Eugene Fink, Carnegie Mellon University
Katy Gann, Boeing
Adam Hesterberg, Princeton University
Lori Levin, Carnegie-Mellon University
Patrick Littell, University of British Columbia
David Mortensen, University of Pittsburgh
James Pustejovsky, Brandeis University
Dragomir Radev, University of Michigan
Amy Troyani, Taylor Allderdice High School
Susanne Vejdemo, University of Stockholm
Michael White, Ohio State University
Julia Workman, University of Pittsburgh
Yilu Zhou, George Washington University

Web site and registration:
Adam Emerson, University of Michigan

NACLO 2011 organizers (cont'd)
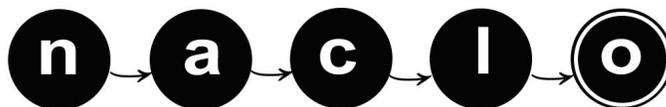
US Team coaches:
Dragomir Radev, University of Michigan (head coach)
Lori Levin, Carnegie Mellon University (coach)
Patrick Littell, University of British Columbia (coach)
Adam Hesterberg, Princeton University (assistant coach)

Canadian coordinator:
Patrick Littell, University of British Columbia

Contest site coordinators:
Brandeis University: James Pustejovsky
Brigham Young University: Deryle Lonsdale
Carnegie Mellon University: Lori Levin and David Mortensen
Central Connecticut State University: Seunghun Lee, Leyla Zidani-Eroglu, and Matthew Ciscel
Columbia University: Kathy McKeown
Dalhousie University: Connie Adsett and Vlado Keselj
Georgetown University: Graham Katz and Tracy Copeland
Howard University: Alla Tovares
Johns Hopkins University: Mark Dredze
Middle Tennessee State University: Aleka Blackwell
Minnesota State University, Mankato: Rebecca Bates
Northeastern Illinois University: Judith Kaplan-Wagner
Ohio State University: Michael White, DJ Hovermale, Julie McGory, and William Hartmann
Princeton University: Christiane Fellbaum and Adam Hesterberg
Rensselaer Polytechnic Institute: Bill Babbit
San José State University: Hahn Koo
Simon Fraser University: John Alderete, Cliff Burgess, and Maite Taboada
Stanford University: Josh Falk, Hanzhi Zhu, and Dan Jurafsky
University of Alabama at Birmingham: Thamar Solorio
University at Buffalo: Carl Alphonce
University of California at Los Angeles: Keith Stevens
University of Colorado at Boulder: Silva Chang
University of Great Falls: Porter Coggins
University of Illinois at Urbana-Champagne: Julia Hockenmaier
University of Illinois, Chicago: Barbara di Eugenio
University of Lethbridge: Yllias Chali
University of Maine: George Markowsky
University of Memphis: Vasile Rus
University of Michigan: Sally Thomason and Steve Abney
University of North Texas: Rada Mihalcea

NACLO 2011 organizers (cont'd)

Contest site coordinators (cont'd):
University of Pennsylvania: Mitch Marcus
University of Rochester: Mary Swift
University of Southern California: David Chiang, Liang Huang, and Victoria Fossum
University of Texas at Dallas: Vincent Ng
University of Washington: Jim Hoard
University of Wisconsin: Nathanael Fillmore and Xiaojin Zhu
University of Wisconsin, Milwaukee: Joyce Tang Boyland, Jonas Wittke, Suzanne A. Loosen,
Gabriella A. Pinter, and Hanyong Park
Western Michigan University: Shannon Houtrouw and John Kapenga
High school sites: Dragomir Radev

Student assistants:
Reed Blaylock, University of Michigan
Angie Chang, University of Michigan
Amy Hemmeter, University of Michigan
Andrew Lamont, University of Michigan
Adrienne Reed, University of Michigan
David Ross, University of Michigan
Samuel Smolkin, University of Michigan

Booklet editors:
Dragomir Radev, University of Michigan
Samuel Smolkin, University of Michigan

Sponsorship chair:
James Pustejovsky, Brandeis University

Corporate, academic, and government sponsors:
National Science Foundation
The North American Chapter of the Association for Computational Linguistics (NAACL)
Carnegie Mellon University
Gelfand Center for Community Outreach, Carnegie Mellon University
University of Michigan
The University of Pittsburgh Intelligent Systems Program

Special thanks to:
Tanya Korelsky, NSF
More than 65 high school teachers from over 25 states and provinces

And many other individuals and organizations

NACLO 2011 sites

SFU — SIMON FRASER UNIVERSITY — THINKING OF THE WORLD

Carnegie Mellon

San José State UNIVERSITY

UTD

MIDDLE TENNESSEE STATE UNIVERSITY

THE UNIVERSITY of WISCONSIN MADISON

THE UNIVERSITY OF MEMPHIS

Brandeis — TRUTH — EVEN UNTO ITS INNERMOST PARTS — Brandeis University

UNIVERSITY of WISCONSIN UWM MILWAUKEE 1819 1885 1956

WESTERN MICHIGAN UNIVERSITY 1903

USC UNIVERSITY OF SOUTHERN CALIFORNIA

University of Lethbridge

COLUMBIA UNIVERSITY

University of Great Falls

UNIVERSITY OF NORTH·TEXAS

STANFORD UNIVERSITY

1865 THE UNIVERSITY OF MAINE

1850 MELIORA

UAB THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

BYU BRIGHAM YOUNG UNIVERSITY

UNIVERSITY of ROCHESTER

HOWARD UNIVERSITY 1867

Penn UNIVERSITY of PENNSYLVANIA

CENTRAL CONNECTICUT STATE UNIVERSITY 1849

MINNESOTA STATE UNIVERSITY MANKATO

UB University at Buffalo The State University of New York

I ILLINOIS UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

M UNIVERSITY OF MICHIGAN

JOHNS HOPKINS UNIVERSITY

Northeastern Illinois University

UIC

THE OHIO STATE UNIVERSITY

RENSSELAER POLYTECHNIC INSTITUTE 1824

UNIVERSITY OF WASHINGTON 1861

PRINCETON UNIVERSITY

DALHOUSIE UNIVERSITY Inspiring Minds

CU

UCLA

Georgetown UNIVERSITY

as well as more than 65 high schools throughout the USA and Canada