



***The Eleventh
Annual***

**North
American
Computational
Linguistics
Olympiad**

2017

www.nacloweb.org

2017 Handbook Appendix

**Version 1.00, June 5, 2016
Check the web site for updates**

2017 Contest Dates

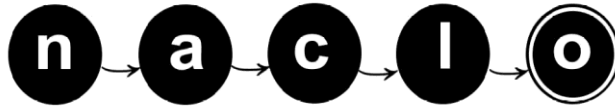
Open Round: January 26, 2017

Invitational Round: March 9, 2017

Site registration deadline: January 15, 2017

Student registration deadline: January 25, 2017 (**noon PST, if space available**)

Walk-ins are allowed with advance permission of the local site host



Sample Problems

These are real problems from NACLO 2007-2010. Solutions appear on the NACLO web site.

Hmong

Hmong Daw (which belongs to the Hmong Mien language family, along with several other Hmong languages) is spoken by approximately 165 thousand people in south-eastern China, Laos, Thailand, Vietnam, and some other countries.

In the 1960s, Shong Lue Yang, a peasant from the Hmong Daw nation (also known as White Miao), invented an original writing system for his native language. This writing system is still in use, alongside a Roman-based alphabet created by Christian missionaries.

Here are several words and phrases in the Hmong Daw language, written in Shong Lue Yang's script and in the missionaries' alphabet, as well as their English translations:

1. H̄ W̄IK ̄ŌH̄	kdev ntsuas no	degree
2. ̄ŌH̄	hauv	inside
3. ̄ŌH̄ ̄ŌH̄ ̄ŌH̄	raug raws cai	legal
4. ̄ŌH̄ ̄ŌH̄	hloov mus	transfer
5. ̄ŌH̄	qhua	guest
6. ̄ŌH̄ ̄ŌH̄ ̄ŌH̄	yog los nag	it is raining
7. ̄ŌH̄	kwv yees	guess
8. ̄ŌH̄ ̄ŌH̄ ̄ŌH̄	ris ceg luv	Bermuda shorts

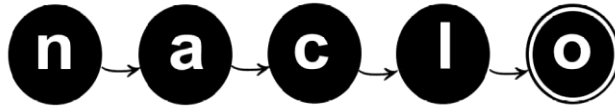
In the missionaries' alphabet the letter **w** stands for a specific vowel. The letters **g**, **s** and **v** at the ends of the syllables aren't consonants; instead, they denote the so-called tones (specific ways of pronouncing the vowels).

D1. Write in the missionaries' alphabet (and explain):

9. ̄ŌH̄	bird
10. ̄ŌH̄	lobster
11. ̄ŌH̄ ̄ŌH̄	speak
12. ̄ŌH̄ ̄ŌH̄ ̄ŌH̄	dizzy

D2. Write in Shong Lue Yang's script (and explain):

13. hluav	ash
14. li cas	how?
15. neeg ntse	smart, wise
16. yawg	grandfather



Rewrite me badd

You speak a little differently than your parents do. They probably say that you're speaking "bad English". Every generation of parents says this, but this is just how language works. In fact, this is where languages come from: enough generations of young people speaking "bad Latin", and eventually you have Spanish, French, and Italian!

Huishu is a language in the Tangkhulic family that is spoken in the easternmost part of India. Over time, enough changes occurred in this one village that the villagers now speak a different language than any of their neighboring villages. So, where they used to say "-lo" ("buy"), they now say "-lu", and where they used to say "-muk" ("cattle"), they now say "-mu?". (That symbol at the end represents the sound in the middle of "Uh-oh!", and the dashes in front just mean that these have to occur as parts of larger words.)

Linguists model historical sound changes as "string-rewrite rules". These are very much like a "find-and-replace" procedure in a word processor: look for one character or pattern, and replace it with another one. As the old language changed into modern Huishu, the following string-rewrite rules applied:

K-Insertion: When you find an [u] at the end of the word, add a [k] after it.

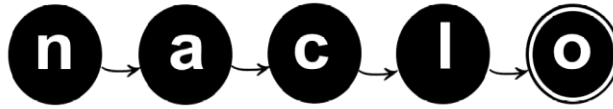
Vowel-Raising: When you find an [o] at the end of the word, replace it with [u].

K-Deletion: When you find a [k] at the end of a word, replace it with [?].

These changes didn't all just happen at once, though. They happened one after another—although not necessarily in the order above!—and we can see in which order they happened by comparing the old forms to the new forms. Only one order will work; if these changes had happened in any other order, we would have different modern words.

- G1.** Here are a few such pairs (the old form is at the top; the new one is at the bottom). From these, can you determine the order in which the above changes must have occurred? Write the names of the rules in the blanks on the left. The blanks in between each pair are for your benefit: if you write how each word changed as each rule applied, you should be able to work out their ordering in time.

Proto-Tangkhulic form:	-ru ("bone")	-khuk ("knee")	-ko ("nine")
Rule 1:			
Intermediate form 1:			
Rule 2:			
Intermediate form 2:			
Rule 3:			
Huishu form:	-ruk	-khu?	-ku



This problem is pretty // easy

True story: a major wireless company recently started an advertising campaign focusing on its claim that callers who use its phones experience fewer dropped calls.

The billboards for this company feature sentences that are split into two parts. The first one is what the recipient of the call hears, and the second one—what the caller actually said before realizing that the call got dropped. The punch line is that dropped calls can lead to serious misunderstandings. We will use the symbol // to separate the two parts of such sentences.

- (1) Don't bother coming // early.
- (2) Take the turkey out at five // to four.
- (3) I got canned // peaches.

These sentences are representative of a common phenomenon in language, called "garden path sentences". Psychologically, people interpret sentences incrementally, before waiting to hear the full text. When they hear the ambiguous start of a garden path sentence, they assume the most likely interpretation that is consistent with what they have heard so far. They then later backtrack in search of a new parse, should the first one fail.

In the specific examples above, on hearing the first part, one incorrectly assumes that the sentence is over. However, when more words arrive, the original interpretation will need to be abandoned.

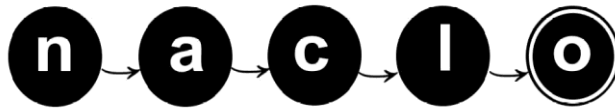
- (4) All Americans need to buy a house // is a large amount of money.
- (5) Melanie is pretty // busy.
- (6) Fat people eat // accumulates in their bodies.

H1. Come up with two examples of garden path sentences that are not just modifications of the ones above and of each other. Split each of these two sentences into two parts, and indicate how hearing the second part causes the hearer to revise his or her current parse.

For full credit, your sentences need to be such that the interpretation of the first part should change as much as possible on hearing the second part. For example, in sentence (6) above, the interpretation of the word "fat" changes from an adjective ("fat people") to a noun ("fat [that] people eat...").

Note: Sentences like "You did a great job..., // NOT!" don't count.

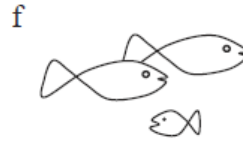
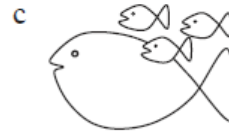
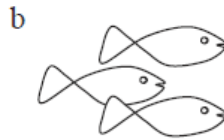
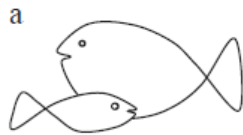
H2. Rank sentences (4), (5), and (6), as well as the two sentences from your solution to H1 above, based on how surprised the hearer is after hearing the second part. What, in your opinion, makes a garden path sentence harder to process by the hearer?



A Fish Story

Aymara is a South American language spoken by more than 2 million people in the area around Lake Titicaca, which, at 12,507 feet above sea level, is the highest navigable lake in the world. Among the speakers of Aymara are the *Uros*, a fishing people who live on artificial islands, woven from reeds, that float on the surface of Lake Titicaca.

E1 (practical). Below, seven fishermen describe their catch. Who caught what?



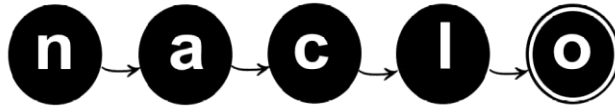
- ___ 1. "Mä hach'a challwawa challwataxa."
- ___ 2. "Kimsa hach'a challwawa challwataxa."
- ___ 3. "Mä challwa mä hach'a challwampiwa challwataxa."
- ___ 4. "Mä hach'a challwa kimsa challwallampiwa challwataxa."
- ___ 5. "Paya challwallawa challwataxa."
- ___ 6. "Mä challwalla paya challwampiwa challwataxa."
- ___ 7. "Kimsa challwa paya challwallampiwa challwataxa."

Also, watch out! One of the fishermen is lying.

E2 (practical). Your daily catch is pictured to the right. Describe it in Aymara, and don't lie!



E3 (theoretical). Describe your reasoning.



Pooh's encyclopedia

Once upon a time, a very long time ago, Winnie-the-Pooh and his friends bought an electronic encyclopedia, and tried to find answers to several important questions:

Winnie-the-Pooh:

Where should a bear stock his jars of honey?

How much honey should a bear store for the winter?

Eeyore:

Where should I look for my lost tail?

Which animals sleep during the winter?

Christopher Robin:

What is the shortest way from my place to the house of Winnie-the-Pooh?

Who wrote the books about Pooh Bear?

The encyclopedia's search engine identified a number of articles related to their questions; for example, it returned the following matches:

Winter food storage (for Winnie-the-Pooh)

Sleep patterns in mammals and other animals (for Eeyore)

Short stories and movies about Winnie-the-Pooh (for Christopher Robin)

Writers of children's books (for Christopher Robin)

On the other hand, the search engine missed several other relevant articles; in particular, it did *not* retrieve the following articles:

Planning of food supplies

Lost-and-found agencies

Finding shortest paths on a map

Biography of A.A. Milne, the author of Winnie-the-Pooh

BI. Your task is to determine who received each of the following matches; two of these matches were for Winnie-the-Pooh, two for Eeyore, and two for Christopher Robin. Explain why!

Books about care and feeding of bears

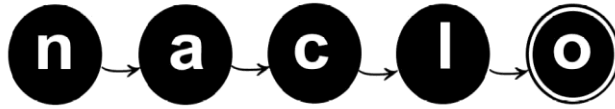
Effects of honey on the sleep quality of humans and animals

Lost tales of "Bulls vs. Bears" stock trading

Ways to look for lost things

Ways to store food in the house

Winter hibernation of bears and rodents



We are all molistic in a way

Imagine that you have heard these sentences:

Jane is molistic and slatty.
Jennifer is cluvious and brastic.
Molly and Kyle are slatty but danty.
The teacher is danty and cloovy.
Mary is blitty but cloovy.
Jeremiah is not only sloshful but also weasy.
Even though frumsy, Jim is sloshful.
Strungy and struffy, Diane was a pleasure to watch.
Even though weasy, John is strungy.
Carla is blitty but struffy.
The salespeople were cluvious and not slatty.

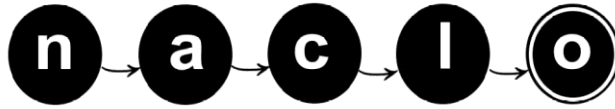
A1. Then which of the following would you be likely to hear?

- a. Meredith is blitty and brastic.
- b. The singer was not only molistic but also cluvious.
- c. May found a dog that was danty but sloshful.

A2. What quality or qualities would you be looking for in a person?

- a. blitty
- b. weasy
- c. sloshful
- d. frumsy

A3. Explain all your answers. (Hint: The sounds of the words are not relevant to their meanings)



A donkey in every house

Consider these phrases in Ancient Greek (in a Roman-based transcription) and their unordered English translations:

- | | |
|-----------------------------------|----------------------------------|
| (A) <i>ho tōn hyiōn dulos</i> | (1) the donkey of the master |
| (B) <i>hoi tōn dulōn cyrioi</i> | (2) the brothers of the merchant |
| (C) <i>hoi tu emporu adelphoi</i> | (3) the merchants of the donkeys |
| (D) <i>hoi tōn onōn emporoi</i> | (4) the sons of the masters |
| (E) <i>ho tu cyriu onos</i> | (5) the slave of the sons |
| (F) <i>ho tu oicu cyrios</i> | (6) the masters of the slaves |
| (G) <i>ho tōn adelphōn oicos</i> | (7) the house of the brothers |
| (H) <i>hoi tōn cyriōn hyioi</i> | (8) the master of the house |

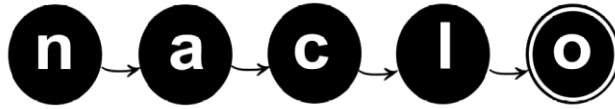
C1. Place the number of the correct English translation in the space following each Greek sentence. Explain your answers!

C2. Translate into Ancient Greek:

- the houses of the merchants;
- the donkeys of the slave

Explain your answers!

Note: The letter \bar{o} stands for a long o .



Gelda's House of Gelbelgarg (1/3)

A frequent problem in computational linguistics is that passages often use words that the computer simply doesn't have in its dictionary. Online slang evolves very fast, people use foreign words in English passages, people make typos and invent new abbreviations, etc. You could add new words to the dictionary as fast as you can find them, and the next day, the program could still be stumped by a new one!

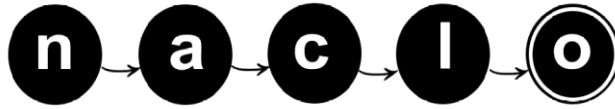
But the program doesn't have to give up—instead, it can try to work out as much as it can. Various clues can tell a program whether something is a noun or a verb, a person or an inanimate object, etc., and you can even work out more! The following is a webpage where customers have rated their most recent experience at Gelda's House of Gelbelgarg. Even if you've never heard of any of these dishes, you can still figure out some things about them...

AI. Based on the following reviews, attempt to categorize the following items into:

- I:** Individual, discrete food items
- L:** Liquids, undifferentiated masses, or masses of uncountably small things
- C:** Containers or measurements

You won't be able to categorize them with 100% certainty, but use the category that you think is most probable for each. Choose a single category for each word below.

	I	L	C
färsel-försel			
gelbelgarg			
gorse-weebel			
rolse			
flebba			
göngerplose			
meembel			
sweet-bolger			



Gelda's House of Gelbelgarg (2/3)

Gelda's House of Gelbelgarg

☆☆☆ based on 18 reviews

1138 Euclid Ave.
Neighborhood: [Lower Uptown](#)
Category: [Ethnic](#), [Specialty](#)
Price Range: [\\$\\$](#)
Hours: Mon-Fri. 10:00 a.m. - 9:00 p.m.
Sat. 10:30 a.m. - 11:00 p.m.



[mosfel2](#)

Reviews: 2

A hidden gem in Lower Uptown! Get the färsel-försel with gorse-weebel and you'll have a happy stomach for a week. And top it off with a flebba of sweet-bolger while you're at it!

[Report this](#)

Food	☆☆☆☆
Service	☆☆☆
Atmosphere	☆☆☆☆
Value	☆☆

[SanDeE*](#)

Reviews: 2

The portions at this place are just too big! I'd rather have half the portions at a lower price – they just bring out too many göngerplose and too much meembel for me.

[Report this](#)

Food	☆☆☆
Service	☆☆
Atmosphere	☆☆☆☆
Value	☆☆

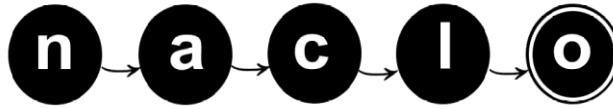
[wndlHghs40](#)

Reviews: 5

i took my nana here and she said it was just like she remembered from the old country. but the service was a bit lacking – nana ordered four gelbelgarg and the waitress only brought two!

[Report this](#)

Food	☆☆☆☆
Service	☆
Atmosphere	☆☆☆
Value	☆☆



Gelda's House of Gelbelgarg (3/3)

[xMandiee7x](#)

Reviews: 4

I found the food confusing and disorienting. Where is this from? I randomly ordered the färsel-försel and had to send them back! Three words: weird, weird, and weird.

[Report this](#)

Food	★
Service	★★★
Atmosphere	★★★
Value	★

[wrlldTrvl1977](#)

Reviews: 11

I went to Wolserl last year for a holiday, and this is the real thing. If you order the gelbelgarg, though, make sure you also get at least one rolse of sweet-bolger – it's how the locals like it!

[Report this](#)

Food	★★★
Service	★★
Atmosphere	★★★★
Value	★★★

[money@home](#)

Reviews: 103

User is on probation

the prices are steep, but i can afford them – i make up to \$75/hr working at home! find out how i do it at <http://bit.ly/grhCm>

Food	★★★
Service	★★★
Atmosphere	★★★
Value	★★★

[bu_zhidao](#)

Reviews: 8

not a great date spot! i got a gelbelgarg and a rolse of meembel, but my date was so disoriented that she just ended up with some gorse-weebel. :/

[Report this](#)

Food	★★
Service	★★
Atmosphere	★
Value	★★

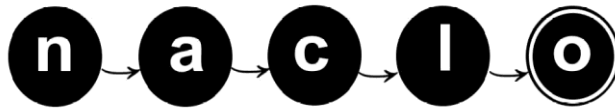
[wembley2000](#)

Reviews: 2

[Report this](#)

The food was pretty good... But I would have liked more gorse-weebel and fewer göngerplöse. You really feel like the chef is skimping on the good stuff..

Food	★★★
Service	★★
Atmosphere	★★★
Value	★

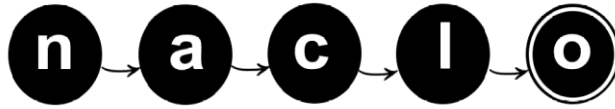


Lost in Yerevan (1/2)

On her visit to Armenia, Millie has gotten lost in Yerevan, the nation's capital. She is now at the metro station named **Shengavit**, but her friends are waiting for her at the station named **Barekamutyun**. Can you help Millie meet up with her friends?

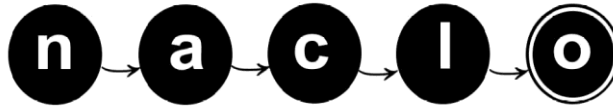
ԿԱՐԵՆ ԴԵՍԻՐՃՅԱՆԻ ԱՆՎԱՆ
ԵՐԵՎԱՆԻ
ՄԵՏՐՈՊՈԼԻՏԵՆ





Lost in Yerevan (2/2)

- C1.** Assuming Millie takes a train in the right direction, which will be the first stop after Shengavit? Note that all names of stations listed below appear on the map.
- Gortsaranayin
 - Zoravar Andranik
 - Charbakh
 - Garegin Njdehi Hraparak
 - none of the above
- C2.** After boarding at Shengavit, how many stops will it take Millie to get to Barekamutyun (don't include Shengavit itself in the number of stops)?
- C3.** What is the name (transcribed into English) of the end station on the short, five-station line that is currently in construction, shown in a different shade on the map?



Texting, Texting, One Two Three (2/2)

- E0.** What are the input codes for each of the lowercase letters? Not every letter is used in the messages above, but you can still deduce how they are encoded. This table is just for your own use as you answer the questions below.

a		n	
b		o	
c		p	
d		q	
e		r	
f		s	
g		t	
h		u	
i		v	
j		w	
k		x	
l		y	
m		z	

- E1.** What message does the following sequence of button presses encode?

23|2|23223232|4|43|3|42343234|32233343|2324|43222|424|4234|33|

- E2.** With what sequences of button presses would you input the following messages?

help

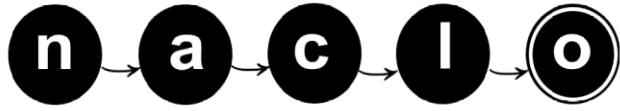
xray

affirmative

Mayday mayday SOS

- E3.** This scheme only shortens the number of button presses needed *on average* – most messages are shorter, but there are some that will take more presses than they did on the Z1200¹. Can you find a message (using only characters whose codes you know) that will be longer using the above method than it would have been if it used exactly three button presses per character (including the END sequence)?

¹This is true for every compression scheme, actually – for any method of compressing data into less space, there will always be some example that when “compressed” is larger than it was originally!



Problem Credits

Hmong – Ivan Derzhanski

Rewrite me badd – Patrick Littell

This problem is pretty//easy – Dragomir Radev

A fish story – Patrick Littell

Pooh's encyclopedia – Eugene Fink

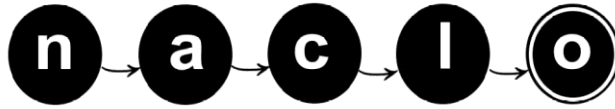
We are all molistic in a way – Dragomir Radev (based on a paper by Vasileios Hatzivassiloglou and Kathleen McKeown)

A donkey in every house – Todor Tchervenkov

Gelda's House of Gelbelgarg – Patrick Littell

Lost in Yerevan – Dragomir Radev

Texting, Texting, One Two Three – Patrick Littell



NSF Press Release 2007

Press Release 07-103

Team USA Takes the Prize at the International Linguistics Olympiad in St. Petersburg, Russia

First-time competitors show U.S. strength, potential in this important field



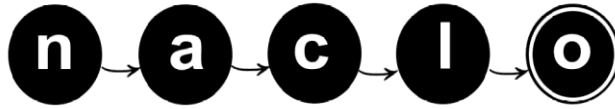
The U.S. team at the 2007 International Linguistics Olympiad in St. Petersburg, Russia.

August 17, 2007

Six American high-school students took the top honors in the 2007 International Linguistics Olympiad in St. Petersburg, Russia earlier this month. This year was the first time a delegation represented the United States at the annual competition. Their victory brings a new focus on computational linguistics.

This year's International Olympiad featured 15 teams representing 9 different countries, including the Netherlands, Russia and Spain. Competitors were given problem sets consisting of sentences in languages most people are not familiar with, including: Tatar; Georgian; a language spoken by indigenous people in Bolivia called Movima; the Papua New Guinean language Ndom; Hawaiian; Turkish; and their English translations. With just this information, the competitors then had to translate more sentences from these languages into English. Winners were judged by how accurately and quickly they could figure out the rules and structure of the languages and complete their translations.

Eight high school students from the U.S. competed in the fifth Olympiad from August 1-4, 2007. Adam Hesterberg, of Seattle, Wash., obtained the highest score of all participants in the individual competition. Jeffrey Lim of Arlington, Mass. received top prize for the best solution to



one of the problems. In addition, Rebecca Jacobs of Los Angeles, Calif., Joshua Falk of Pittsburgh, Penn., Michael Gottlieb of Dobbs Ferry, N.Y. and Anna Tchetchetkine, of San Jose, Calif. won the top prize in the team competition in a tie with a Russian team.

Other American team members were U.S. champion Rachel Zax and Ryan Musa, both of Ithaca, N.Y. The U.S. teams were coached by Dragomir Radev, of the University of Michigan. Also providing leadership for the teams were Lori Levin of Carnegie Mellon University, Thomas Payne of University of Oregon and Amy Troyani of Taylor Allderdice High School, Pittsburgh, Penn.

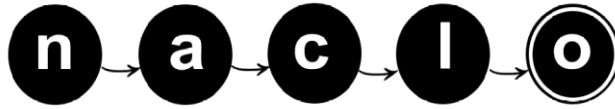
The U.S. teams were selected from finalists of the North American Computational Linguistics Olympiad (NACLO) that took place on March 29, 2007, at four different locations across the country, as well as over the Internet.

Aside from being a fun intellectual challenge, the Olympiad mimics the skills used by researchers and scholars in some areas of the field of computation linguistics, which is increasingly important for the United States and other countries. Using computational linguistics, these experts can develop automated multilingual technologies such as translation software that cut down on the time and training needed to work with other languages, or software that automatically produces informative English summaries of documents in other languages or answer questions about information in these documents. In an increasingly global economy where businesses operate across borders and languages, having a strong pool of computational linguists is an important competitive advantage. With threats emerging from different parts of the world, developing computational linguistics skills has also been identified as a vital component of national defense in the 21st century.

Because of the growing importance of this intriguing field, the National Science Foundation initiated NACLO, funding a planning workshop in September 2006, and, together with the North American chapter of the Association for Computational Linguistics, Google, and others helped fund the NACLO this spring that selected the members of Team USA, as well as the team's trip to the International Olympiad. The participants and their families also made contributions to bring the team to St. Petersburg for the Olympiad.

Organizers are planning to expand the size and number of locations for next year's NACLO competition in order to bring another strong team back to the 2008 Olympiad, which will be held in Bulgaria. Coach Radev says "now that everyone is aware of the strength of the US team, we can no longer count on the surprise factor. For next year, we will need to build an even stronger team."

-NSF-



NSF Press Release 2008

Press Release 08-140

Team USA Brings Home the (Linguistics) Gold

Young Americans earn medals competing against other high schoolers from around the world in the International Linguistics Olympiad in Bulgaria



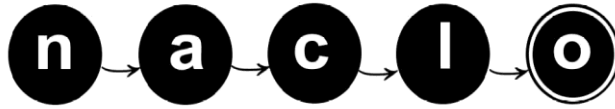
The U.S. team shows their awards at the 2008 International Linguistics Olympiad in Bulgaria.

August 15, 2008

The summer games in Beijing may have just gotten underway, but the United States can already claim gold medal bragging rights. The sixth International Linguistics Olympiad ended today in Slanchev Bryag, Bulgaria, and U.S. high school students captured 11 out of 33 awards, including gold medals in individual and team events. This was only the second time the U.S. has ever competed in the event. Their achievement brings a new focus on computational linguistics.

This year's Olympiad featured 16 teams from around the world, including Bulgaria, Estonia, Germany, Latvia, the Netherlands, Poland, Russia, Sweden, South Korea and Slovenia. Each problem presented clues about the sounds, words or grammar of a language the students had never studied, such as Micmac, a Native American language spoken in Canada, the New Caledonia languages of Drehu and Cemuhi, as well as several historical Chinese dialects. They were then judged by how accurately and quickly they could untangle the clues to figure out the rules and structures of the languages to solve the problem.

Team 1 was composed of Guy Tabachnick of New York City, Jeffrey Lim of Arlington, Mass., Josh Falk of Pittsburgh, Pa, and Anand Natarajan of San Jose, Calif.



Jae-Kyu Lee of Andover, Mass., Rebecca Jacobs of Encino, Calif., Morris Alper of Palo Alto, Calif., and Hanzhi Zhu of Shrewsbury, Mass. participated as Team 2.

Team 1 claimed a silver medal in the team competition and Team 2 captured a gold. Team 2 also won a trophy for the highest combined score on the individual competition. In the individual competition, Jacobs, Lim and Tabachnick were awarded bronze medals, Alper and Natarajan won silver, and Zhu captured a gold.

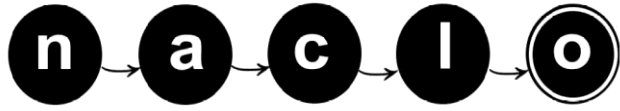
The National Science Foundation initiated the North American Computational Linguistics Olympiad (NACLO), and together with major contributions from the North American chapter of the Association for Computational Linguistics, Google, Carnegie-Mellon University's Leonard Gelfand Center for Outreach, and the University of Michigan, helped fund NACLO's activities this year, along with other support from Cambridge University Press, Just Systems Evans Research, M*Modal, Powerset and Vivisimo.

Aside from being a fun intellectual challenge, the Olympiad mimics the skills used by researchers and scholars in the field of computational linguistics, which is increasingly important for the United States and other countries. Using computational linguistics, these experts can develop automated technologies such as translation software that cut down on the time and training needed to work with other languages, or software that automatically produces informative English summaries of documents in other languages or answer questions about information in these documents. In an increasingly global economy where businesses operate across borders and languages, having a strong pool of computational linguists is a competitive advantage. With threats emerging from different parts of the world, developing computational linguistics skills has also been identified as vital to national defense in the 21st century.

The participants, their families and many private individuals also made contributions to bring the team to Bulgaria for the Olympiad. The U.S. teams were led by head coach Dragomir Radev, associate professor of computer science, information, and linguistics at the University of Michigan, and associate coach Lori Levin, co-chair of NACLO and associate research professor in the Language Technologies Institute at Carnegie Mellon University. Adam Hesterberg, who achieved the highest individual score in last year's Olympiad and is currently attending Princeton University, was present this year as an assistant coach. The team was also accompanied by National Board Certified Teacher Amy Troyan, who also serves as gifted program coordinator at Taylor Allderdice High School.

Other NACLO organizers who did not go on the trip include Tom Payne, NACLO co-chair, University of Oregon; James Pustejovsky, a professor of computer science at Brandeis University; Pat Littell, graduate student at the University of Pittsburgh; and Mary Jo Bensasi, who helped provide administrative support to the project.

"It has truly been exciting to watch our students prepare for this competition and interact with each other," Troyani said. "They seem to thrive on the opportunity to share their love of

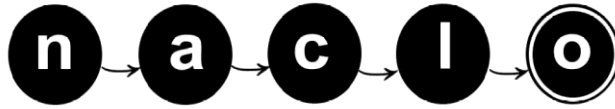


linguistics and learning with other students who have the same passions. This is an incredible and inspiring group of young people."

Levin described this year's delegation as "brilliant young people who live and breathe languages, linguistics, and problem solving. I already feel like they are colleagues."

The U.S. delegation was selected from over 750 high school students who participated in NACLO qualifying events held at 77 sites around the U.S. and Canada this past winter.

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NSF Press Release 2009

Press Release 09-148

U.S. Students Win Big at the International Linguistics Olympiad

Event in Poland highlights significance of emerging field of computational linguistics



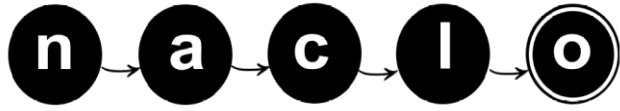
U.S. teams competed in the 2009 International Linguistics Olympiad in Wroclaw, Poland.

August 5, 2009

High school students from across the U.S. won individual and team honors last week at the seventh annual International Olympiad in Linguistics held in Wroclaw, Poland. The results reflect U.S. competence in computational linguistics, an emerging field that has applications in computer science, language processing, code breaking and other advanced arenas.

The U.S. fielded two teams at the Olympiad, which featured competitors from 17 different countries, including Australia, Germany, India, South Korea and Russia. Rebecca Jacobs of Los Angeles took the highest individual honor of any U.S. competitor with a silver medal, while John Berman of Wilmington, N.C., Sergei Bernstein of Boston, and Alan Huang of Beverly Hills, Mich., each took home bronze medals. Morris Alper of Palo Alto, Calif., Daryl Hansen of Sammamish, Wash., Anand Natarajan of San Jose, Calif. and Vivaek Shivakumar of Arlington, Va. received honorable mentions for their work. Berman and Huang were also recognized for their solutions to specific problems.

The U.S. Red team, comprised of Alper, Huang, Jacobs, and Natarajan took home the gold cup in team competition.



This year's U.S. teams were chosen from hundreds of students who competed in the third annual North American Computational Linguistics Olympiad (NACLO) that took place this past winter throughout the country. NACLO, and the U.S. teams that competed this summer, are sponsored by the National Science Foundation, Google, Cambridge University Press, Microsoft, Everyzing, M*Modal, JUST. Systems, The North American Chapter of the Association for Computational Linguistics (NAACL), Oxford University Press, Carnegie Mellon University's Language Technologies Institute, the University of Michigan, Brandeis University, and the University of Pittsburgh Linguistics Department.

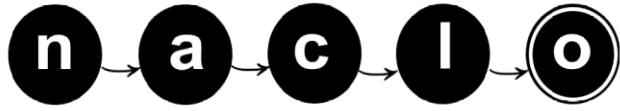
The competitors faced a variety of challenges that tested their linguistics and problem-solving skills. The first question, for example, gave the teens the names and quantities of several common tropical fruits in Sulka, a language spoken by only 3,500 people in Papua New Guinea, and then asked them to translate other combinations of the words from English to Sulka and vice versa. The competitors then had to work on other problems featuring the West African languages of Bamana and Maninka as well as Burmese and Nahuatl, the language of the ancient Aztec Empire. In addition to providing translations, the teens were required to describe in detail the formulas and systems they developed to tackle each problem.

Aside from being a fun intellectual challenge, the Olympiad mimics the skills used by researchers and scholars in the field of computation linguistics, which is increasingly important for the United States and other countries. Using computational linguistics, these experts can develop automated translation technologies such as translation software that cut down on the time and training needed to work with other languages. In an increasingly global economy where businesses operate across borders and languages, having a strong pool of computational linguists is an important competitive advantage. With threats emerging from different parts of the world, developing computational linguistics skills has also been identified as a vital component of national defense in the 21st century.

While the linguistics competition is fun, it also requires dedication and hard work by many people, all of whom are volunteers. The organizing committee is headed by Dragomir Radev of the University of Michigan and Lori Levin of Carnegie Mellon University, and it also includes Mary Jo Bensasi, Eugene Fink, Adam Hesterberg, Patrick Littell, Ida Mayer, James Pustejovsky and Amy Troyani. Radev, Levin and Hesterberg also coached the U.S. team this year in Poland.

Organizers are already working on next year's NACLO competition and hope to repeat the U.S.'s success in the international competition. More information as well as problem sets and solutions can be found on the organization's Web site <http://www.naclo.cs.cmu.edu/>.

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Press Release 2010

US Linguistics Team Brings Home Numerous Awards

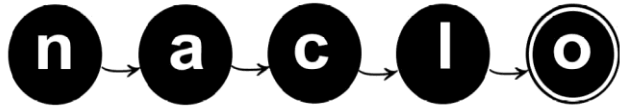


For eight US high-school students, the most coveted award coming out of Stockholm this year isn't in Physics or Medicine. This week, 26 teams of young linguists from 18 countries descended on the beautiful capital of Sweden to participate in the 8th [International Olympiad in Linguistics](#).

This year the US team won a large number of prizes: Ben Sklaroff of Palo Alto, Calif. won one of three gold medals awarded in the Individual Competition. Three other contestants, Martin Camacho of St. Paul, Minn., Allen Yuan of Farmington Hills, Mich., and Damien Jiang of Raleigh, NC won silver medals, and Alan Chang of San Jose, Calif. and Alexander Iriza of New York, NY took home bronze medals. Honorable mentions went to Brian Kong of Milton, Mass. and In-Sung Na of Old Tappan, NJ. In-Sung and Allen had just come from International Mathematics Olympiad in Astana, Kazakhstan, where they earned silver medals for the US team.

One of the two US teams, USA Blue consisting of Alex, Alan, Damien, and Martin, took home the cup awarded to the team with the highest average score in the individual competition. Damien, Martin, and Ben were also awarded Best Solution awards for their elegant explanations of individual problems.

The problems at this year's IOL were in Mongolian, Budukh, Drehu, Romansch, Blissymbolics, and genetic sequence analysis.



This is the 4th time the US has sent teams to the IOL. Team USA members are selected from more than 1,100 contestants in the North American Computational Linguistics Olympiad, held each year in February and March. This year's team was led by Dr. Lori Levin of Carnegie Mellon University, Dr. Dragomir Radev of the University of Michigan, Ann Arbor, and Patrick Littell of the University of British Columbia.

This year's team, as well as the NACLO competition, were sponsored by the National Science Foundation, Carnegie Mellon University, the University of Michigan, D. E. Shaw, University of Pittsburgh Intelligent Systems Program, the North American chapter of the Association for Computational Linguistics (NAACL), as well as other generous contributors.

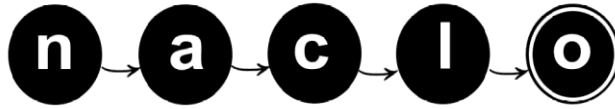
Lori Levin says, "It is an honor to work with such smart and talented young people. We hope to encounter them again as they progress through their careers." Patrick Littell adds, "Even though not all of these young scholars will go on to major in Linguistics, every one will carry with them a more sophisticated understanding of human language, which will go on to inform whatever fields they excel in."

One team member proclaims, "International Olympiad in Linguistics? More like Incredible Opportunity to Learn!"

Contact information:

Dr. Lori Levin, Carnegie Mellon University (lsl@cs.cmu.edu)

Dr. Dragomir Radev, University of Michigan (radev@umich.edu)



Press Release 2011

US and Canadian Teams Collect Medals at International Linguistics Olympiad

One hundred and two high school students from around the world converged on Carnegie Mellon University in Pittsburgh this week for the 9th annual International Olympiad of Linguistics (IOL), the first time the competition has been held in the US. In the Individual round, competitors struggled independently with problems about Faroese orthography, Menominee morphology, Vai syntax, Nahuatl semantics, and the structure of the barcode language EAN-13, while in the team round, groups of up to four students worked out the metrical rules of Sanskrit poetry.

Twenty-seven teams participated, representing nineteen countries, among them Australia, Bulgaria, India, the Netherlands, Poland, Russia, Singapore, South Korea, Sweden, and the United Kingdom. The United States, competing for the fifth year, sent twelve students in three teams. Canada participated for the first time with a single team of four students. Other countries attending for the first time were Brazil, the United Arab Emirates, and Vietnam.

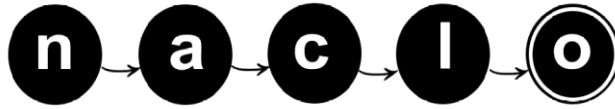
US students did exceptionally well, winning a total of six individual medals, one gold, four silver, and one bronze, as well as five honorable mentions and three awards for the best solution received for a single question. One US team, Team Red, won an additional two team awards, placing first in the team portion of the competition and having the highest combined score of its members on the individual round.

Canadian students won one bronze medal and one honorable mention. Canada received awards for the best new team at the competition and the best performance by an individual student from a new team at the competition.

Students for the US and Canadian teams were chosen from over one thousand students based on their performance on the two rounds of the North American Computational Linguistics Olympiad (NACLO) held in February and March of this year. Dr. Dragomir Radev of the University of Michigan was the coach of the US teams and NACLO program chair and Patrick Littell of the University of British Columbia coached the Canadian team. Dr. Lori Levin of Carnegie Mellon University served as chair of the local organizing committee for the IOL.

The members of the US and Canadian teams were:

- “USA Red”: Aaron Klein, of Brookline, MA; Duligur Ibeling, of Maple Grove, MN; Wesley Jones, of Germantown, TN; and Morris Alper, of Palo Alto, CA
- “USA White”: Erik Andersen, of Sunnyvale, CA; Allen Yuan, of Farmington Hills, MI; Chelsea Voss, of San Jose, CA; and Arjun Srinivasan, of Herndon, VA



- “USA Blue”: Alexander Wade, of Reno, NV; Ophir Lifshitz, of Rockville, MD; Caroline Ellison, of Newton, MA, and Rachel McEnroe, of Jackson NJ.
- “Team Canada”: Daniel Mitropolsky, of Toronto, ON; Keunjae Go of Vancouver, BC; Jordan Ho, of Toronto, ON; and William Zhang, of Vancouver, BC.

Morris Alper won one of four gold medals awarded to top scorers in the individual round of the competition. Students from Estonia and Russia also earned gold medals, but Alper was awarded the Alfred Zhurinsky memorial prize for achieving the single highest individual round score of the competition. The prize is named for the founder and organizer of the original linguistics competitions, which began in Moscow forty-six years ago.

Four US participants received silver medals: Allen Yuan, Wesley Jones, Alexander Wade, and Duligur Ibeling. One US student, Aaron Klein, took home a bronze medal, as did a Canadian student, Daniel Mitropolsky. Five US students and one Canadian student won honorable mentions: Ophir Lifshitz, Arjun Srinivasan, Caroline Ellison, Erik Andersen, Chelsea Voss, and William Zhang.

Awards were also given for the best solution to individual problems. Alper shared the prize for the best solution to problem 2 (Faroese Orthography) with a student from Slovenia, Ellison won outright the best solution prize to problem 3 (Vai translation), and Wade shared the best solution prize to problem 4 (Nahuatl translation) with a student from Russia.

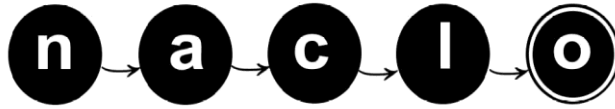
One US team, “USA Red”, consisting of Alper, Jones, Klein, and Ibeling took home two additional awards: a gold medal for the best performance on the team portion of the competition, and a cup for the team with the highest combined score on the individual portion of the competition.

The Canadian team was honored as the best new team in the competition, and Mitropolsky had the highest score of any member of a new team.

This year's US and Canadian teams as well as the entire North American Computational Linguistics Olympiad were sponsored by the National Science Foundation, the North American Chapter of the Association for Computation Linguistics (NAACL), Yahoo!, and the University of Michigan.

In January 2011, the Linguistics Society of America awarded NACLO its "Linguistics, Language, and the Public" award for increasing awareness of linguistics in the general public.

The primary purpose of NACLO is to raise public awareness of linguistics and computational linguistics. "Usually, college students don't even hear about computational linguistics until they are well along in their undergraduate studies," says Levin. "Our hope is that competitions such as the Computational Linguistics Olympiad will identify students who have an affinity for



linguistics and computational linguistics before they graduate high school and encourage them to pursue further studies at the university level."

The 10th International Linguistics Olympiad will be held in Slovenia in 2012. The US and Canadian teams will be selected as part of NACLO 2012, to be held across the USA and Canada in Winter 2012.

Contact information, links:

NACLO: <http://www.naclo.cs.cmu.edu/> (includes questions from previous national linguistics olympiad)

IOL: <http://ioling.org/> (includes links to contest questions and full results for the international linguistics olympiad)

Photographs, and interviews with participants from this year's international Olympiad may also be found at:

<http://www.facebook.com/pages/2011-International-Linguistics-Olympiad/230095130337783>

Dr. Lori Levin, Carnegie Mellon University. local organizing chair for the IOL (ls1@cs.cmu.edu)

Dr. Dragomir Radev, University of Michigan, program chair of NACLO, US team leader for the IOL, (radev@umich.edu)

Patrick Littell, University of British Columbia, Canadian team leader for the IOL, (littell@interchange.ubc.ca)



US Linguistics Olympiad team members, along with their coaches. Front row: Wesley Jones, Chelsea Voss, Aaron Klein, Allen Yuan, Duligur Ibeling. Middle row: Ophir Lifshitz, Rachel McEnroe, Lori Levin, Caroline Ellison, Morris Alper. Back row: Erik Andersen, Arjun Srinivasan, Alexander Wade, James Pustejovsky, Dragomir Radev

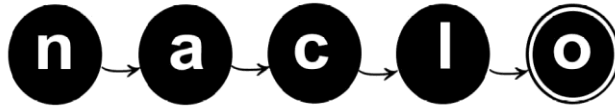
n a c l o



USA Team Red: Morris Alper, Aaron Klein, Duligur Ibeling, and Wesley Jones



Team Canada: Front row: Jordan Ho, Keunjae Go, William Zhang, Daniel Mitropolsky. Back row: Patrick Littell



Press Release 2012

USA and Canada Triumph at International Linguistics Olympiad

2012 International Linguistics Olympiad

Hosted by the Association for Technical Culture of Slovenia

Held at the Faculty of Electrical Engineering of the University of Ljubljana

July 29 - August 4, 2012, Ljubljana, Slovenia

Team USA Red: Allan Sadun (Austin, TX), Anderson Wang (Ambler, PA), Darryl Wu (Bellevue, WA), and Sam Zbarsky (Rockville, MD)

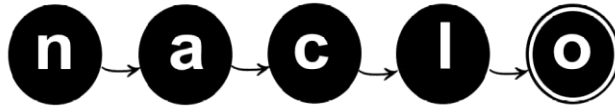
Team USA Blue: Erik Andersen (Sunnyvale, CA), Aidan Kaplan (Montclair, NJ), Aaron Klein (Brookline, MA), and Alexander Wade (Reno, NV)

Team Canada: Pen Long (Toronto, ON), Harry Go (Langley, BC), Simon Huang (Toronto, ON), and David Penco (Burnaby, BC)

Coaches: Dragomir Radev and Lori Levin (USA); Pat Littell (Canada)

On July 29, eight Americans and four Canadians traveled to Ljubljana, Slovenia, to join over 30 teams from around the world at the 2012 International Linguistics Olympiad (IOL). The North Americans, who all trained together, performed extremely well. In the team contest, USA Blue-Erik Andersen, Aidan Kaplan, Aaron Klein, and Alexander Wade-won first place. The Netherlands won second place in the team contest, and Poland Team 2 came in third. In the individual round, the USA won six medals and one honorable mention, and Canada won one honorable mention. Alexander Wade and Anderson Wang of USA won gold medals; Aaron Klein, Allan Sadun, and Darryl Wu of USA won silver medals; Erik Andersen of USA won a bronze medal; and Sam Zbarsky of USA and Harry Go of Canada won honorable mention awards. Second place by medals was Russia with two gold, one silver, and two bronze medals, and the UK and Estonia tied for third place with one silver and three bronze medals each. Bulgaria had two golds and a bronze.

The IOL, one of twelve international science olympiads, consists of two events. The first is the individual contest, a six-hour test, which this year had problems about the languages Dyrbal, Umbu-Ungu, Basque, Teop, and Rotuman. Darryl Wu won a prize for writing the best solution to the Dyrbal problem, Alexander Wade won prizes for the best solutions to the Basque and Rotuman problems, and Anderson Wang won for the best solution of the Teop problem. The second event is the team contest, which this year asked contestants to decipher a list of 57 countries written in Lao. To solve these problems, contestants must apply knowledge about the way languages work as well as logic and reasoning skills to



decipher unfamiliar languages and writing systems.

The teams were selected through the North American Computational Linguistics Olympiad (NACLO). This competition has two rounds, which are held at universities and high schools throughout the USA and Canada. This year over 1,500 students took the open round, a three-hour test. The top students from the open round were invited to the next round, a more difficult, five-hour test. The top four from the invitational round-Allan Sadun, Anderson Wang, Darryl Wu, and Sam Zbarsky-were chosen to be Team USA Red, and the top four Canadians-Pen Long, Harry Go, Simon Huang, and David Penco-were chosen for Team Canada. The next fourteen Americans were all invited to the joint American-Canadian practices, which were conducted via Skype by the USA coaches Dragomir Radev, a professor at the University of Michigan, and Lori Levin, a professor at Carnegie Mellon University, the Canadian coach Pat Littell, a doctoral student at the University of British Columbia, and Adam Hesterberg, an IOL veteran and Fulbright scholar in mathematics. The coaches used the practices and one final playoff to select USA Team Blue, named above.

In addition to competing, the students at the IOL also explored Slovenia and made friends from all over the world. Twenty-seven countries were represented this year-the most ever since the Olympiad began in 2003 when six countries competed in Borovets, Bulgaria. Next year ALLs IOL will be held in Manchester, England.

More info:

NACLO : www.naclo.cs.cmu.edu

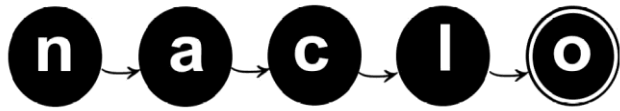
IOL : ioling.org

Contact:

Prof. Dragomir Radev, University of Michigan, program chair of NACLO, US team leader for the IOL, (radev@umich.edu)

Dr. Lori Levin, Carnegie Mellon University. NACLO chair, local organizing chair for the IOL (ls@cs.cmu.edu)

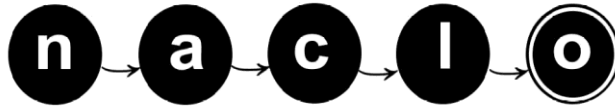
Patrick Littell, University of British Columbia, Canadian team leader for the IOL, (littell@alumni.ubc.ca)



US Linguistics Olympiad team members, along with their coaches: from L to R: Dragomir Radev (team leader), Lori Levin (team leader), Anderson Wang, Allan Sadun, Darryl Wu, Sam Zbarsky, Aidan Kaplan, Alex Wade, Erik Andersen, Aaron Klein, Matthew Gardner (team management), Sabrina Cromwell (team management)



US and Canada team members. Front row: Lori Levin (US coach), Harry Go (Canada), Allan Sadun (USA), Pat Littell (Canada coach), Aidan Kaplan (USA), Alex Wade (USA), Erik Andersen (USA). Back row: Dragomir Radev (US coach), Qin Long (Canada), Anderson Wang (USA), Sam Zbarsky (USA), Darryl Wu (USA), David Penco (Canada), Aaron Klein (USA), Simon Huang (Canada).



Press Release 2013

USA and Canada win many awards at the 2013 International Linguistics Olympiad

Eight American and four Canadian high school students brought a number of awards at 2013 International Linguistics Olympiad (IOL) held between July 22 and 26 in Manchester, UK.

FOR IMMEDIATE RELEASE



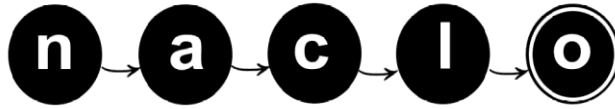
(Press Release) – July 26, 2013 International Linguistics Olympiad (IOL)
Hosted by Manchester Grammar School and the University of Manchester
July 22 – 26, 2013, Manchester, UK

Team Canada (white T-shirts; left to right): Jordan Ho (Toronto, ON), Janis Chang (Toronto, ON), Stella Lau (Toronto, ON), and Daniel Lovsted (Toronto, ON)
Team USA Red (red T-shirts; left to right): Tom McCoy (Pittsburgh, PA), Max Schindler (St. Louis, MO), Alexander Wade (Reno, NV), and Aaron Klein (Brookline, MA)
Team USA Blue (blue T-shirts; left to right): Erik Andersen (Sunnyvale, CA), Simone Stoyen (Herndon, VA), Rebecca Burks (Los Altos, CA), and Jeffrey Ling (Palo Alto, CA)

Coaches: Pat Littell (Canada) and Dragomir Radev (USA), NACLO Chair Lori Levin, and Sponsorship Chair James Pustejovsky.

On July 19, eight Americans and four Canadians traveled to Manchester, UK, to join over 30 teams from around the world at the 2013 International Linguistics Olympiad (IOL). The North Americans, who all trained together, performed extremely well.

The IOL, one of twelve international science olympiads, consists of two events. The first is the individual contest, a six-hour test, which this year had problems about the languages Yidini, Tundra Yukaghir, Pirahã, and Muna, as well as a problem on functional magnetic resonance imaging (fMRI). The second event is the team contest, which this year involved an ancient



variant of Georgian, the language of the Republic of Georgia in the Caucasus region of Eurasia. To solve these problems, contestants must apply knowledge about the way languages work as well as logic and reasoning skills to decipher unfamiliar languages and writing systems.

One of the two USA Teams (USA Red) won both team competitions. In the team problem competition, the US team was followed by Russia, Bulgaria, and Romania.

In the individual contest, the absolute winner among all 137 contestants, with 87 points out of 100, was Alex Wade (USA Red), who received one of seven gold medals; the other six gold medals went to contestants from Russia, the Czech Republic, Brazil, Poland, Bulgaria, and Latvia. Jeffrey Ling and Aaron Klein won silver medals for the US teams. Max Schindler and Tom McCoy won bronze for the USA and Daniel Lovsted won a bronze for Canada.

The three teams were selected through the *North American Computational Linguistics Olympiad (NACLO)*. This annual competition has two rounds, which are held at universities and high schools throughout the USA and Canada. This year over 1,700 students took the open round, a three-hour test. Approximately the top 10% of the students from the open round were invited to the next round, a more difficult, five-hour test. The joint American-Canadian practices, which were conducted via Skype by the USA coaches *Dragomir Radev*, a professor at the University of Michigan, and *Lori Levin*, a professor at Carnegie Mellon University, and the Canadian coach *Pat Littell*, a doctoral student at the University of British Columbia. Professor James Pustejovsky of Brandeis University chaired the fundraising committee for the team. The teams' sponsors include the Feldberg Foundation, Brandeis University, the North American Chapter of the Association for Computational Linguistics (NAACL), the Linguistics Society of America (LSA), Carnegie Mellon University, the University of Michigan, as well as individual donors and parents.

In addition to competing, the students at the IOL also explored Manchester and made friends from all over the world. *Twenty-six* countries were represented this year. Next year's IOL will be held in Beijing, China.

More info:

IOL 2013 <http://www.uklo.org/iol-2013>

NACLO <http://www.naclo.cs.cmu.edu>

IOL <http://www.ioling.org>

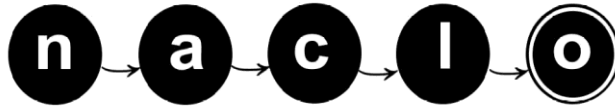
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NACLO Press Release 2014

Teams USA and Canada win ten medals, including the team gold medal, at the 2014 International Linguistics Olympiad in Beijing

Eight American and four Canadian high school students won a total of 9 individual medals and one team gold at the 2014 International Linguistics Olympiad (IOL) held from July 21 to July 25 in Beijing, China.

FOR IMMEDIATE RELEASE

(Press Release) – July 29, 2014

Hosted by Beijing Language and Culture University (BLCU)
July 21 – 25, 2014, Beijing, China



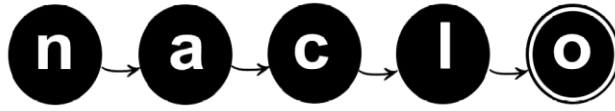
Team Canada (left to right): **Simon Huang** (Toronto, ON), **Daniel Lovsted** (Toronto, ON), **Minh-Tam Nguyen** (Scarborough, ON), **Yan Huang** (West Windsor, NJ)

Team USA 1 (Red) (left to right): **Alexander Babiak** (Ithaca, NY), **Jackie Bredenberg** (Royal Oak, MI), **Deven Lahoti** (Houston, TX), **Darryl Wu** (Bellevue, WA)

Team USA 2 (Blue) (left to right): **Catherine Wu** (San Diego, CA), **Brandon Epstein** (Dix Hills, NY), **James Bloxham** (Marblehead, MA), **Kevin Li** (San Diego, CA)

Coaches: **Heather Newell** (Canada) and **Dragomir Radev** (USA), NACLO Chair **Lori Levin**, and Sponsorship Chair **James Pustejovsky** (not pictured).

On July 18, four Canadian and eight US students traveled to Beijing, China, to join 38 other teams from 28 countries around the world at the 2014 International Linguistics Olympiad (IOL). The North Americans, who all trained together, performed excellently.

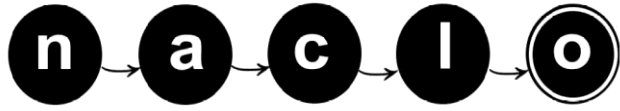


The IOL, one of twelve international science olympiads, consists of two events. The first is the individual contest, a six-hour test, which this year had problems about Benabena, Kiowa, Tangkin, Engenni, and Gbaya. The second event is the team contest, which this year involved building a grammar for Armenian and translating the Universal Declaration of Human Rights from Armenian to English. To solve these problems, contestants must apply knowledge about the way languages work as well as logic and reasoning skills to decipher unfamiliar languages and writing systems. Of the 152 contestants, 41 received medals (7 gold, 13 silver, and 21 bronze). Five teams received three medals each: USA 1 (1 gold and two silvers), followed by Canada (1 gold, 1 silver, 1 bronze), Russia 2 (1 gold, 2 bronze), China 1 (2 silver, 1 bronze), USA 2 (1 silver, 2 bronze). Seven teams received two individual medals each: Poland 1, Russia 1, China 2, India, Bulgaria 1, the Czech Republic, and Latvia. Thirteen teams received one medal each: the United Kingdom, Romania, Poland 2, Ukraine, Slovenia, Japan 2, Sweden 2, South Korea 1, Estonia, Sweden 1, Australia 1, and Singapore.

Individual Round: The three North American teams performed excellently this year, getting two individual gold medals: by Darryl Wu from USA (second place overall) and Daniel Lovsted from Canada (third place overall). Catherine Wu, Deven Lahoti, Yan Huang, and Alexander Babiak earned silver medals; Kevin Li, James Bloxham, and Simon Huang earned bronze medals, while Minh-Tam Nguyen, Brandon Epstein, and Jackie Bredenberg earned honorable mentions. Three North American students earned best solution awards, namely Darryl for Problem 2, Simon for Problem 3, and Catherine for Problem 4. USA Team Red won the prize for the highest combined score in the individual contest with 230 points. Canada finished in second place in this event with 210 points, followed by a three-way tie for third place between Poland 1, China 1, and USA Blue, scoring 192 points each.

Team Round: In the team round, USA Red won the first prize (29 points), ahead of the two teams from Russia (24 and 23.5 points, respectively).

The three teams were selected through the *North American Computational Linguistics Olympiad (NACLO)*. This annual competition, held since 2007, has two rounds, which are held at universities and high schools throughout the USA and Canada. This year over 1,600 students took the open round, a three-hour test. Approximately the top 10% of the students from the open round were invited to the next round, a more difficult, five-hour test. The joint US-Canadian practices, which were conducted via Skype and in person by the USA coaches *Dragomir Radev*, a professor at the University of Michigan, and *Lori Levin*, a professor at Carnegie Mellon University, and the Canadian coach *Heather Newell*, a professor at Université du Québec à Montréal. Professor James Pustejovsky of Brandeis University chaired the fundraising committee for the team. The teams' sponsors include Yahoo!, the North American Chapter of the Association for Computational Linguistics (NAACL), the Linguistic Society of America (LSA), The US National Science Foundation, Brandeis University, Carnegie Mellon University, the University of Michigan, Université du Québec à Montréal, as well as individual donors and parents.



Students at IOL also toured various sites in Beijing in addition to competing, and made many friends from around the world. *Brandon Epstein* of USA Blue said “It was excellent! I had a lot of fun competing in [the IOL]. We did problems based on languages with particularly interesting, idiosyncratic properties and we had to figure them out. I also got to meet a lot of new people from a lot of countries I have never visited, like Poland and Sweden. I hope I qualify again next year!” *Minh-Tam Nguyen* added “I had never been to anything like the IOL before, and the experience surpassed my highest expectations. Within just a week I was able to form new friendships with people from all around the world and lasting memories that I will cherish forever. I am so grateful to have been given the opportunity to attend IOL 2014, and I hope whole-heartedly that I will have the honour to represent my country again in the coming years”. *Jackie Bredenberg* had the following to say “In America, we are surrounded by people who speak English. Even if it's not someone's first language, he/she is expected to learn it. Even businesspeople from other countries all seem to be fluent, because English is the language of business, etc. It's easy to grow up with the idea that learning other languages is not quite as important, because we fortunate Americans will always be able to find people who speak our native tongue. The trip to China really changed my perspective in this matter. I found myself dependent on Chinese-speaking friends, because without them I couldn't get directions, order food, or even locate the bathroom. I realized how great a barrier language can be in communication, and therefore what a powerful tool knowledge of languages is. At a contest of linguistics, this is a valuable lesson! I know that many of my teammates will share their memories of the contest or the sight-seeing, so I hope this adds a slightly different perspective on the value of the IOL. *Deven Lahoti* concurred “I was really excited that I made the IOL team. The IOL was a great experience since it let me get to know people with similar interests from all over the US and all over the world.”

The next IOL will be held in Bulgaria in 2015.

More info:

NACLO <http://www.naclo.cs.cmu.edu> (includes practice problems, contest rules, and information about registering for NACLO)

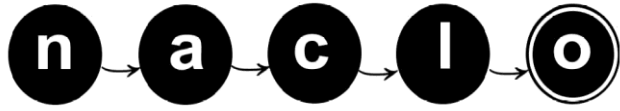
IOL <http://www.ioling.org> (includes all results from this year's Olympiad as well as all previous editions)

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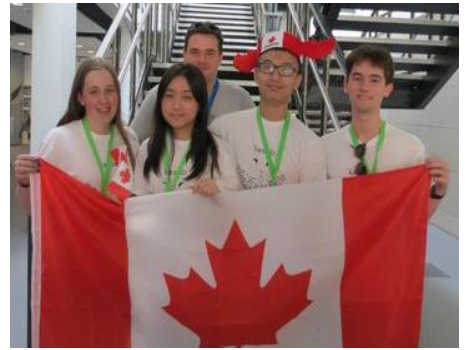
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2015 NACLO PRESS RELEASE

USA and Canada teams win nine medals at the 2015 International Linguistics Olympiad in Blagoevgrad, Bulgaria



Two USA teams and one Canada team, each consisting of four high school students, won eight individual medals and a team medal at the 13th International Linguistics Olympiad, held July 20-24 in Blagoevgrad, Bulgaria. The USA contestants also took five of the top ten places in the individual contest, including three gold medals. USA Red also finished in first place among 44 teams based on the combined score of its members in the individual contest.

FOR IMMEDIATE RELEASE

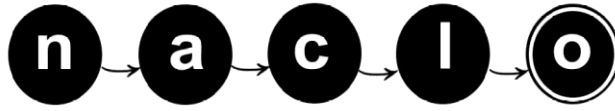
July 29, 2015

Hosted by the American University in Bulgaria (AUBG)

July 20 – 24, 2015, Blagoevgrad, Bulgaria

On July 18, eight USA students and four Canada students traveled to the American University in Blagoevgrad, Bulgaria, joining 40 other teams from 27 other countries to compete in the 13th International Linguistics Olympiad (IOL). The three North American teams, organized, selected, and coached by the North American Computational Linguistics Olympiad saw immense success.

The IOL, one of twelve international science olympiads, consists of two events. The first is the individual contest, a six hour exam with five problems, which this year focused on Kabardian, Wambaya, Somali Masafo, Nahuatl, and Arammba, as well as on Soundex, an algorithm for phonetic classification of



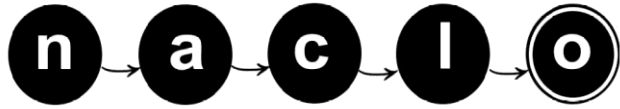
names. The team contest is the second event of the IOL, in which team members collaborate to solve one particularly challenging problem. This year, teams were tasked with translating excerpts from a Northern Sotho dictionary. Problem solving at the IOL stresses the ability of contestants to decipher the mechanisms of languages by using logic and reasoning to explore a wide range of hypotheses.

Individual Round: Three US contestants, James Wedgwood of Washington, James Bloxham of Massachusetts, and Kevin Yang of Washington, won gold medals in the individual round, with James Wedgwood also earning the top individual score from among 165 contestants from 29 countries. Silver medals went to three US contestants, Kevin M Li of California, Conor Stuart-Roe of North Carolina, and Julian Gau of New Jersey. Nilai Sarda of Georgia and Emma McLean of Nova Scotia won bronze medals. Finally, Kevin Q Li of New Jersey, Ben Zhang of Ontario, and James Hyett of Ontario were awarded honorable mentions. James Bloxham and James Wedgwood received best solution awards for Problem 3 and Problem 5, respectively. Team USA Red's combined scores on the individual score were the highest of any team. The two US teams (Red and Blue) had a massive average score of 62 points, way above all other teams.

Team Round: Team USA Red finished second on the team problem, following Team UK West. Team Poland White and Team Netherlands tied for third place.

In addition to the competition, the IOL also provided contestants with a fantastic introduction to the culture of Bulgaria and the other countries represented at the olympiad. This year, students saw scenes ranging from performances of traditional Bulgarian dancing and singing to a tour of Rila Monastery, an Eastern Orthodox landmark established in 927. Kevin Yang of USA Red said, "The IOL was really fun because the problems were interesting and we got to meet lots of new people. Also we played cards a lot and stayed up late so that was pretty great." Jamie Bloxham added, "Once again, the IOL exceeded my expectations, and I had a truly fantastic time! The problems were great and meeting so many like-minded people was great, and I know I will miss my time in Bulgaria."

The three North American teams were selected through the North American Computational Linguistics Olympiad (NACLO). This annual competition, held since 2007, has two rounds, which are held at universities and high schools throughout the USA and Canada. This year over 1,700 students took the open round, a three-hour test. Approximately the top 10% of the students from the open round were invited to the next round, a more difficult, three-hour test. The joint US-Canadian practices, which were conducted via Skype and in person by the USA coaches Dragomir Radev, a professor at the University of Michigan, and Lori Levin, a professor at Carnegie Mellon University, and the Canadian coach Patrick Littel of University of British Columbia, as well as assistant coaches Tom McCoy of Yale University and Adam Hesterberg of MIT. Professor James Pustejovsky of Brandeis University chaired the fundraising committee for the team. The teams' sponsors include the North American Chapter of the Association for Computational Linguistics (NAACL), the Linguistic Society of America (LSA), The US National Science Foundation (NSF), the Association for Computing Machinery Special Interest Group on Information Retrieval (SIGIR), The Linguistic Data Consortium (LDC), Brandeis University, Carnegie Mellon University,



the University of Michigan, the University of Washington, Yahoo! Choosito!, and Yieldpoint, as well as individual donors and parents.

The next IOL will be held in Mysore, India, from July 25-29, 2016.

More Info

NACLO - <http://www.nacloweb.org/> - contains practice problems, contest rules, and registration details for NACLO's competitions.

IOL - <http://www.ioling.org/> - contains a record of all past IOL problems and results

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