

NILP

Introduction to Natural Language Processing

Introduction

Language and Communication

- **Speaker**
 - Intention (goals, shared knowledge and beliefs)
 - Generation (tactical)
 - Synthesis (text or speech)
- **Listener**
 - Perception
 - Interpretation (syntactic, semantic, pragmatic)
 - Incorporation (internalization, understanding)
- **Both**
 - Context (grounding)

Basic NLP Pipeline

- (U)nderstanding and (G)eneration



Introduction to NLP

Examples of Text

What NLP is not about

- Romeo loves Juliet.
- ZZZZZ is a great stock to buy.

What it is about (1/2)

- After the ball, in what is now called the "balcony scene", Romeo sneaks into the Capulet orchard and overhears Juliet at her window vowing her love to him in spite of her family's hatred of the Montagues.

What it is about (2/2)

- **ZZZZZ Resources** (NYSE:ZZZZZ) in their third quarter financials present a picture of a company with a relatively high amount of debt versus shareholder equity, and versus revenues. The company had total liabilities in the third quarter of \$4,416 million versus shareholders' equity of only \$1,518 million. That is a very high 3 to 1 debt to equity ratio. The company had third quarter revenues of \$306 million. On an annualized basis, revenues would come out to \$1,224 million. The company's debt level is almost 3 times its annual revenues. And remember, third quarter revenue is from before oil prices dropped in half. It looks like ZZZZZ may have bitten off more than it can chew.
- **XXXXX Petroleum** (NYSE:XXXXX) is another company whose third quarter financials present a relatively high debt load. The company had total liabilities in the third quarter of \$3,272 million versus shareholder equity of only \$1,520 million. That represents a high 2 to 1 debt to equity ratio. The company had third quarter revenues of \$350 million. On an annualized basis revenues would come out to \$1,400 million. The company's debt is more than 2 times its annual revenue. While XXXXX is a very good operator, it looks like they have taken on the high debt strategy at the wrong time.
- **YYYYY Energy** (NYSE:YYYYY) has a relatively high debt load according to their third quarter financials. The company had total liabilities of \$2,026 million versus shareholder equity of \$1,079. That is almost a 2 to 1 debt to equity ratio. Their third quarter revenues were \$207 million. When annualized, their third quarter revenues come out to \$827 million. The company's debt is almost 2 1/2 times its annualized revenues, and that is before the collapse of oil prices.

Understanding a News Story

Brazil crowds attend funeral of late candidate Campos

More than 100,000 people in Brazil have paid their last respects to the late presidential candidate, Eduardo Campos, who died in a plane crash on Wednesday.

They attended a funeral Mass and filled the streets of the city of Recife to follow the passage of his coffin. Later this week, Mr Campos's Socialist Party is expected to appoint former Environment Minister Marina Silva as a replacement candidate.

Mr Campos's jet crashed in bad weather in Santos, near Sao Paulo.

Investigators are still trying to establish the exact causes of the crash, which killed six other people.

Mr Campos's private plane - a Cessna 560XL - was travelling from Rio de Janeiro to the sea-side resort of Guarujá, near the city of Santos.

President Dilma Rousseff, who's running for re-election in October, was among many prominent politicians who travelled to Recife for the funeral.

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Why did I highlight some of the phrases above?

Highlighted Phrases

- Brazil crowds attend funeral of late candidate Campos
 - Current event
- Mr Campos's jet crashed in bad weather in Santos
 - Background event
- Mr Campos's Socialist Party is expected to appoint...
 - Speculation
- President Dilma Rousseff
 - Property
- They attended a funeral Mass
 - Pronominal reference to an entity in a previous sentence

Genres of Text

- Blogs, emails, press releases, chats, debates, etc.
- Each presents different challenges to NLP

The screenshot shows the 'Create Debate' website interface. At the top, there's a navigation bar with 'Sign Up' and 'Login' buttons. Below that, a search bar and a 'Debate Info' section are visible. The main content area features a debate topic: 'Do you think that schools should provide more help to developmentally challenged'. Two sides are presented: 'yes they should' with a score of 1, and 'what they are doing is fine' with a score of 2. A 'Debate Creator' section allows users to add arguments, with a '1 point' reward for each. Below this, there are two user-submitted arguments. The first, by user 'afred61356', argues that public schools should teach behavioral skills and give mentally challenged listening exercises. The second, by user 'FromWash18', discusses the challenges of teaching these students and the need for specialized programs. The interface includes various social media sharing options and a 'VS' icon between the two sides.

The screenshot shows the Wikipedia article for Tony Blair. The article title is 'Tony Blair' and it is categorized as 'Prime Minister of the United Kingdom'. The main text begins with a lead sentence: 'Anthony Charles Lynton Blair (born 6 May 1953) is a British Labour Party politician who served as the Prime Minister of the United Kingdom from 1997 to 2007. He was the Member of Parliament (MP) for Sedgefield from 1983 to 2007 and Leader of the Labour Party from 1994 to 2007. Blair led Labour to a landslide victory in the 1997 general election, winning 418 seats, the most the party has ever held. The party went on to win two more elections under his leadership: in 2001, in which it won another landslide victory, and in 2005, with a reduced majority. Blair was elected Labour Party leader in the leadership election of July 1994, following the sudden death of his predecessor, John Smith. Under his leadership, the party used the phrase "New Labour" to distance it from previous Labour policies. Blair declared opposition to the traditional conception of socialism, and declared support for a new conception that he referred to as "socialism-in-one-gear", involving politics that recognised individuals as socially interdependent, and advocated social justice, cohesion, equal worth of each citizen, and equal opportunity.^[2] Critics of Blair denounced him for having the Labour Party abandon genuine socialism and accepting capitalism.^[3] Supporters, including the party's public opinion pollster Philip Gould, stated that after four consecutive General Election defeats, Labour had to demonstrate that it had made a decisive break from its left-wing past, in order to win again.^[4]

The article continues with details of his political career, including his role as Prime Minister from 1997 to 2007, his leadership of the Labour Party, and his involvement in the 1996 Good Friday Agreement and the 2001 invasion of Afghanistan. It also mentions his resignation as Prime Minister in 2007 and his subsequent work as a globalist and philanthropist. The article includes a list of contents, a table of office dates, and a list of family members.

Re: essence documentation - Message (Plain Text)

File Edit View Insert Format Tools Actions Help

Reply Reply to All Forward

Extra line breaks in this message were removed.

From: radev@cs.umich.edu on behalf of Ali Hakim [ahakim@mac.com] Sent: Wed 8/10/2005 1:29 PM

To: sam

CC: radev@umich.edu; Rohit Laungani

Subject: Re: essence documentation

OK. I have added Essence.tex to the doc directory in the CLAIR project.

Can someone tell me how to set up my login shell so I don't have to export the CVS root every time or use the full path to CVS? Thanks.

All

On Aug 10, 2005, at 3:05 PM, sam wrote:

>

> In message <20050810185818.D1E0B8491@tangra.s1.umich.edu>,
> radev@umich.edu writes:

>> sam wrote:

>>>

>>> I will try to make a docx directory in the CVS repository.
>>> (I did this once. I think I just used cvs add with a directory just
>>> as I would have for a file....)

>>> Should it be parallel to the CLAIR directory or below it?

>>>

>>> Below it.

>>>

>> OK, it's there now.

>

Crooked Timber Mozilla Thunderbird

File Edit View Go Message Tools Help

Get Flat Write Address Book Reply Reply All Forward Delete Junk Print Stop

View: All

| Subject | Sender | Date |
|--|---------------|-------------------|
| Declare, if thou hast understanding | Henry | 8/3/2005 1:09 PM |
| "Critical Theory" To be so apped in Queensland schools | John Quaglin | 8/2/2005 10:36 PM |
| Creeping Intellectual | Tom | 8/2/2005 9:46 AM |
| Unpleasantly self-absorbed suicide bombers | Chris Bertram | 8/2/2005 9:32 AM |
| APSA news | Henry | 8/2/2005 9:42 PM |
| Jimmy Doyle on human agency | Chris Bertram | 8/2/2005 1:07 AM |
| Checkball | Chris Bertram | 8/2/2005 9:32 AM |

Subject: Spreading Statistics, cont.

From: Ted

Date: 8/4/2005 9:06 AM

Website: <http://robertborker.org/2005/08/04/spreading-statistics/>

I noted a few days ago that Senator Rick Santorum [made a claim](#) in an online interview about federal taxation. Senator Santorum said that the federal tax rate for the average family has gone up from 2% (in 1950) to 27% to today. Furthermore, he claimed that income from a second worker simply replaces the money that the family pays in increased federal taxes. They would enjoy the same net income if taxes went back to 1950 levels and the second worker stayed at home.

I'm really sure that this isn't true. I'm relying on the [Tax Policy Center](#). They say that federal taxes on a family of four at the median income have gone up from about 7.4% to about 14.4%, and that the family would have saved \$4436 if we could roll back tax rates. That doesn't correspond to the Senator's story.

I checked last night, and Santorum repeats this point in his book, [It Takes a Family](#). It's on page 123 and 124, and there's no source. (There's a bibliography of sorts, but it just lists a series of sources used in each section. There's no way to connect any specific point to any source.) When I called his press office again to ask for a source, they referred me to the publisher, who couldn't help me. Nonetheless, he's repeated this claim at least two more times, on [Hartball](#) with [Chris Matthews](#), and on [Fox News](#).

Shouldn't the Senator care whether what he's saying is right or wrong? Wouldn't it be nice if a journalist asked him about it?

(Incidentally, is there anything more depressing than the "Current Events" section of a mid-level bookstore? There are so many rows of hastily-written, 200-250 page books with giant print, huge margins, and a cover featuring a mangy bastard under a title like "THEY'RE ALL ACADAMIST YOU! How Hollywood, the French, and the CIA Have Conspired to Pollute Your Precious Bodily Fluids and What You Can Do To Stop Them." Robert Bork's [Sloshing Towards Comorral](#) looks like Winston Churchill in all that drack.)

Unread: 0 Total: 118

CNN.com - Turmoil in Peru as PM quits - Aug 11, 2005 - Mozilla Firefox

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http://www.cnn.com/2005/WORLD/americas/08/11/peru.toledo.reut/index.html

Firefox prevented this site from opening a popup window. Click here for options...

International Edition | Netscape

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WORLD

Turmoil in Peru as PM quits

Thursday, August 11, 2005, 9:01 p.m. EDT (00:01 GMT)

LIMA, Peru (Reuters) -- Peruvian President Alejandro Toledo said Thursday he had asked all his ministers to tender their resignations and would evaluate who would stay on in their jobs.

The government was plunged into crisis earlier when Prime Minister Carlos Ferrero quit, following the appointment of Toledo's controversial top ally, Fernando Olivera, as foreign minister.

Housing and Construction Minister Carlos Bruce also resigned immediately.

Bruce and Ferrero both publicly split with Olivera over legalizing some cultivation of the raw material for cocaine, and their resignations signal more turbulence ahead for the unpopular Toledo in his final months in office.

Under Peru's constitution, once a prime minister resigns all ministers must tender their resignations.

"Carlos Ferrero has tendered his irrevocable resignation as prime minister," a statement from his office said.

Ferrero, a veteran lawmaker who has been prime minister since December 2003, would have had to quit the Cabinet by early October if he wanted to run for a congressional seat, but the timing of his announcement -- minutes after Toledo's closest ally was sworn in as foreign minister -- was a surprise.

President Alejandro Toledo has a low public approval rating.

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Done

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YAHOO! FINANCE Sign In Finance Home | Help AP Associated Press

Welcome (Sign In) To track stocks & more, Register

Financial News

Enter symbol(s) Basic Get Symbol Lookup

Scottrade More Special! HARRISover \$100 CREDIT! The 100 Best Stocks

AP **Dell 2Q Profit Rises, Revenue Misses View**

Thursday August 11, 7:01 pm ET
By Matt Slagle, AP Technology Writer

Dell Second-Quarter Profit Rises 28 Percent, but Revenue Misses Wall Street Expectations

DALLAS (AP) -- Increased shipments boosted Dell Inc.'s second-quarter by 28 percent but revenue fell below Wall Street expectations as the company blamely overly aggressive pricing of its low-end desktop and notebook computers.

Revenue at the world's largest PC maker rose 16 percent to \$13.43 billion from \$11.71 billion last year.

The results reported Thursday matched analyst forecasts of 38 cents per share but fell below projected revenue of \$13.71 billion, according to Thomson Financial.

Dell shares, which fell 15 cents to close at \$30.58 on the Nasdaq Stock Market, tumbled 7.7 percent, or \$3.03, to \$36.55 in late trading. Dell released the profit report after the market close.

Net income climbed to \$1.02 billion, or 81 cents per share, from \$799 million, or 31 cents per share, during the year-ago period.

The Round Rock, Texas-based company said its results included a 3-cent tax benefit, without which it would have earned 36 cents per share in the latest quarter.

Chief Executive Kevin Rollins blamed the revenue shortfall on lower prices on its low-end desktops and laptops.

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Stocks to Watch: Dell, Fed, Robin, Gannett, Nvidia, Jamdat Mobile - at MarketWatch 09:00 pm

ISI: Dell's Net Rises on Overseas Strength - at The Wall Street Journal Online 08:00 pm

Disappointing revenues at Dell - at Forbes 08:00 pm

Dell Takes Hit After Its Sales Lag Estimates - Investors Business Daily 07:30 pm

By industry Computer hardware, computers

Top Stories

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Done

Google Press Center

Univision.Com And Google Partner To Bring Search Services to Nation's Most Visited Spanish-Language Website

MOUNTAIN VIEW, Calif. and NEW YORK – July 20, 2005 – Univision Online, Inc., the interactive division of Univision Communications Inc. (NYSE: UVN), today announced that it has entered into multi-year partnership with Google Inc. (NASDAQ: GOOG). The partnership combines the power of the most visited Spanish-language website with an industry leader in search technology and advertising.

Through the partnership with Google, visitors to Univision.com will now receive more relevant, comprehensive, and timely Spanish-language search results optimized for quick delivery in a user-friendly environment. The relationship also connects Univision.com users with more products and services online through targeted advertisements on the search and content pages of the website. In addition, these ads increase the visibility of websites and advertisers serving Hispanics.

"As the most-visited Spanish-language website, Univision.com is excited to work with Google to bring the benefits of more targeted search capabilities to our users," said Javier Saralegui, President, Univision Online. "In addition, for those consumer companies not yet targeting Hispanics online, this partnership should provide additional impetus for them to develop websites in Spanish."

By combining the No. 1 Spanish-language website with sophisticated and effective search technology, Univision.com and Google are taking the lead in ensuring that search becomes a more prominent functionality and effective targeting method in the Hispanic online marketplace.

"Google's agreement with the largest Spanish-language media company in the United States provides Univision's users with relevant information from search results and gives our advertisers a new and targeted way to reach the Hispanic audience," said Tim Armstrong, Vice President, Advertising Sales, Google Inc.

About Univision Online
Univision Online, Inc. is the interactive division of Univision Communications Inc. (NYSE: UVN), the premier Spanish-language media company in the United States. Univision Online owns and operates the premier Spanish-language Internet destination in the U.S., located at www.univision.com, and is a wholly owned subsidiary of Univision Communications Inc. Its operations include Univision Network, the most-watched Spanish-language broadcast television network in the U.S. reaching 98% of U.S. Hispanic Households; TeleFutura Network, a general-interest Spanish-language broadcast television network, which was launched in 2002 and now reaches 85% of U.S. Hispanic Households; Univision Television Group, which owns and operates 27 Univision Network television stations and 1 non-Univision television station, TeleFutura Television Group, which owns and operates 33 TeleFutura Network television stations; Galavisión, the country's leading Spanish-language cable network; Univision Radio, the leading Spanish-language radio group which owns and/or operates 66 radio stations in 16 of the top 25 U.S. Hispanic markets and 4 stations in Puerto Rico; Univision Music Group, which includes Univision Records, Fonovisa Records, and 60% interest in Mexico-based Discos Records labels as well as Fonovisa and America Musical Publishing companies. Univision Communications also has a 50%k interest in TuTV, a joint venture formed to broadcast Televisa's pay television channels in the U.S. 27% interest in Entertainment Communications Corporation, a public Spanish-language media company. Univision Communications is headquartered in Los Angeles with television network operations in Miami and television and radio stations and sales offices in major cities throughout the United States.

For more information, please visit www.univision.net.

About Google Inc.
Google's innovative search technologies connect millions of people around the world with information every day. Founded in 1998 by Stanford Ph.D. students Larry Page and Sergey Brin, Google today is a top web property in all major global markets. Google's targeted advertising program provides businesses of all sizes with measurable results, while enhancing the overall web experience for users.

PTEK HOLDINGS INC (form: 8-K, Received: 09/07/2004 17:03:57) - Mozilla Firefox

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 8-K
CURRENT REPORT PURSUANT
TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
Date of report (Date of earliest event reported) September 7, 2004

PTEK HOLDINGS, INC.
(Exact Name of Registrant as Specified in Its Charter)

GEORGIA
(State or Other Jurisdiction of Incorporation)

000-27778
(Commission File Number)

59-3074176
(IRS Employer Identification No.)

3399 Peachtree Road, NE, Suite 700, Atlanta, Georgia 30326
(Address of Principal Executive Office) (Zip Code)

404-262-8400
(Registrant's Telephone Number, Including Area Code)

(Please Check or Uncheck Appropriate, If Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (See General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 144-12 under the Exchange Act (17 CFR 240.144-12)
- Pre-commencement communications pursuant to Rule 144-2(b) under the Exchange Act (17 CFR 240.144-2(b))
- Pre-commencement communications pursuant to Rule 133e-4(c) under the Exchange Act (17 CFR 240.133e-4(c))

IBM Annual Report (pdf Object) - Mozilla Firefox

1 of 100

Tony Blair - Wikipedia, the free encyclopedia - Mozilla Firefox

Wikipedia needs your help in its 21-day fund drive. See our fundraising page. Over US\$185,000 has been donated since the drive began on 19 August. Thank you for your generosity!

Tony Blair

From Wikipedia, the free encyclopedia.

The **Right Honourable Anthony Charles Lynton Blair** (born **May 6, 1953** in **Edinburgh, Scotland**) is the current **Prime Minister of the United Kingdom**. He has led the **Labour Party** since July 1994, (following the death of **John Smith** in May of that year) and brought Labour into power with a **landslide victory** in the **1997 general election**, replacing **John Major** as Prime Minister and ending 18 years of **Conservative** government. He is now the Labour Party's longest-serving Prime Minister, and the only person to have led the party to three consecutive general election victories, just as **Margaret Thatcher** was the only **Conservative** Prime Minister to win three consecutive general elections.

Blair moved the Labour Party towards the centre of British politics, using the term "**New Labour**" to distinguish what he identifies as "modern social democracy" and his party's refusal to reverse *privatisation* and support for a *market economy* from its past belief in *nationalisation* and *Fabian socialism*. However, critics on the *left* felt that he has compromised the principles of the founders of the Labour party, and that the Blair government has moved too far to the *right*, placing insufficient emphasis on traditional Labour priorities such as the *redistribution of wealth*.

Since the advent of the **War on Terror**, much of the Prime Minister's political agenda has been dominated by foreign affairs, particularly those concerning Iraq, and he has supported many aspects of the foreign policy of United States president George W. Bush, sending British forces to participate in the **2003 invasion of Iraq** and the subsequent occupation and conflict. Blair's Labour party still managed to win an unprecedented third term in the **2005 general election** (unprecedented for the Labour Party; the Conservatives have won two consecutive terms twice since the **Second World War**). Although Labour's majority in the **House of Commons** was reduced considerably to 67 MPs, this remains a substantial working majority and a measure of the relative political weakness and poor credibility of the main opposition party, the **Conservatives**. Some journalists immediately noticed that New Labour no longer has a majority independently of Old Labour, although this may discourage some MPs from mounting damaging rebellions against the leadership.

While Blair is in no danger of losing a potential vote of *no confidence*, the fall in the Labour vote (from 41% to 35%) has renewed speculation amongst commentators as to how long his leadership can continue. It is widely predicted that he will be succeeded by his ambitious **Chancellor of the Exchequer Gordon Brown** before the next General Election (which will occur at the latest in 2010).

Early and private life

Blair was born in Edinburgh, Scotland. His father, Leo Blair, was a **baronist** and later a law lecturer who, having been a **conservative** in his youth, was active in the **Conservative Party**. Leo Blair had had ambitions to stand for Parliament in **Durham**, which were thwarted when he had a stroke when his son was 11, an event which affected

Induction of Influenza-Specific Mucosal Immunity by an Attenuated Recombinant Sendai Virus

Thuc-vy L. Le¹, Elena Mironova², Dominique Garcin², Richard W. Compans^{1*}

¹ Department of Microbiology and Immunology and Emory Vaccine Center, Emory University School of Medicine, Atlanta, Georgia, United States of America,

² Department of Microbiology and Molecular Medicine, University of Geneva School of Medicine, Geneva, Switzerland

Recent advances in molecular genetics have permitted the development of novel virus-based vectors for the delivery of genes and expression of gene products [6,7,8]. These live vectors have the advantage of promoting robust immune responses due to their ability to replicate, and induce expression of genes at high efficiency. Sendai virus is a member of the *Paramyxoviridae* family, belongs in the genus respirovirus and shares 60-80% sequence homology to human parainfluenza virus type 1 (HPIV-1) [9,10]. The viral genome consists of a negative sense, non-segmented RNA. Although Sendai virus was originally isolated from humans during an outbreak of pneumonitis [11] subsequent human exposures to Sendai virus have not resulted in observed pathology [12]. The virus is commonly isolated from mouse colonies and Sendai virus infection in mice leads to bronchopneumonia, causing severe pathology and inflammation in the respiratory tract. The sequence homology and similarities in respiratory pathology have made Sendai virus a mouse model for HPIV-1. Immunization with Sendai virus promotes an immune response in non-human primates that is protective against HPIV-1 [13,14] and clinical trials are underway to determine the efficacy of this virus for protection against HPIV-1 in humans [15]. Sendai virus naturally infects the respiratory tract of mice and recombinant viruses have been reported to efficiently transduce luciferase, lac Z and green fluorescent protein (GFP) genes in the airways of mice or ferrets as well as primary human nasal epithelial cells [16]. These data support the hypothesis that intranasal (i.n.) immunization with a recombinant Sendai virus will mediate heterologous gene expression in mucosal tissues and induce antibodies that are specific to a recombinant protein. A major advantage of a recombinant Sendai virus based vaccine is the observation that recurrence of parainfluenza virus infections is common in humans [12,17] suggesting that anti-vector responses are limited, making repeated administration of such a vaccine possible.

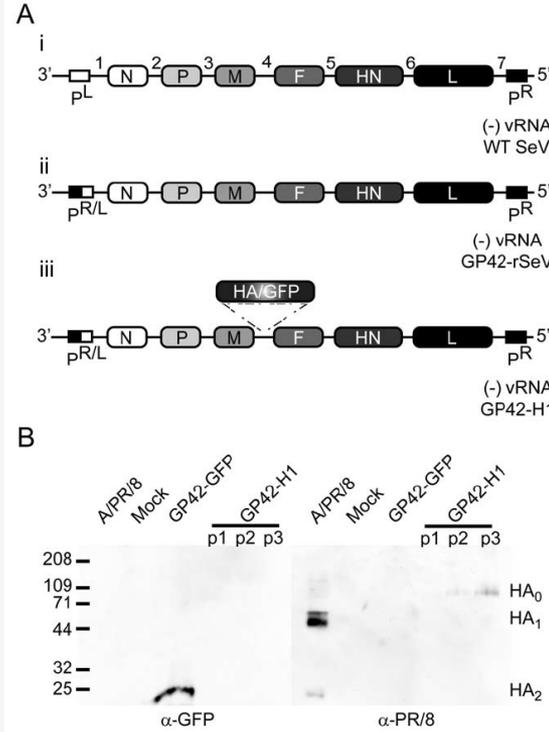


Figure 1. Generation of the GP42-H1 vector. A) Representation of wild-type Sendai virus gene construct (i) illustrating the major viral genes N, P, M, F, HN and L. The left promoter (P^L) and right promoter (P^R) function as the genomic promoter and anti-genomic promoter respectively. Seven gene boundaries that encode the conserved regulatory transcription start and transcription stop sequence are represented numerically. The mutant GP42-SeV (ii) genomic RNA is identical to WT Sendai virus with the exception of 3' P^L in which 42 nucleotides of the P^L were replaced with the corresponding sequence from P^R ($P^{R/L}$). Additional transcription start, stop, poly-adenylation sequences and a unique Mlu I restriction site were introduced into the intergenic region between the Sendai M and F genes. Using the unique Mlu I restriction site, the GFP or HA gene was inserted (respecting the rule of six) generating the recombinant Sendai GP42-GFP [19] or GP42-H1 vectors (iii). B) Recombinant GP42-H1 virus was cultured in BSR-T7 cells for three passages. Cell free supernatant containing virus suspensions were collected and used to infect CV-1 cells (refer to Materials and Methods). Proteins from GP42-GFP or GP42-H1 infected cell extracts were resolved on SDS-PAGE and screened for GFP (left) or HA (right) expression by western analysis. Mock infected cells and allantoic fluid from PR/8 infected eggs are also shown. doi:10.1371/journal.pone.0018780.g001

Plos ONE

DOI: 10.1371/journal.pone.0018780

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These data support the hypothesis that intranasal (i.n.) immunization with a recombinant Sendai virus will mediate heterologous gene expression in mucosal tissues and induce antibodies that are specific to a recombinant protein. A major advantage of a recombinant Sendai virus based vaccine is the observation that recurrence of **parainfluenza virus** infections is common in humans [12,17] **suggesting** that anti-vector responses are limited, making repeated administration of such a vaccine possible.

Named entities + variants (**human parainfluenza virus type, HPIV-1**)

Speculation (**reported, suggesting**)

Species (**human**)

Cell types (**nasal epithelial cells**)

Facts

References

Medical Records

TITLE: PC ACUTE CARE VISIT
DATE OF NOTE: FEB 04, 2000@11:18 ENTRY DATE: FEB 04, 2000@11:20
AUTHOR: EXP COSIGNER:
URGENCY: STATUS: COMPLETED

Chief Complaint: Patient notes 1 month history of blurred vision and frequent urination

HISTORY OF PRESENT ILLNESS:

DEMO, FATHER is a 44 year-old MALE who presents complaining of blurred vision for the past 1 month. He finds it is difficult for him to read clearly and is even effecting his driving. He also notes that he has been getting up to the bathroom frequently, esp. at night. He now routinely to urinate 3-4 times a night. He is not aware of any particular weight loss, but does feel thirsty much of the time.

PAST MEDICAL HISTORY:
Illnesses: Hypertension

Surgeries: None

Allergies: PENICILLINS

Medications:

| | | | |
|----|--|----------------|--------|
| 1) | HYDROCHLOROTHIAZIDE 25MG TAB** | Qty: 45 | ACTIVE |
| | for 90 days Sig: TAKE ONE-HALF TABLET | Refills: 0 | |
| | MOUTH EVERY MORNING THC BLOOD PRESSURE | | |
| 2) | METOPROLOL 25MG XL TAB | Qty: 90 for 90 | ACTIVE |
| | days Sig: TAKE ONE TABLET MOUTH QDAY | Refills: 0 | |
| | FOR THE HEART | | |

FAMILY HISTORY:
Diabetes Father, Sibling, Grandparent

Literary Texts

- Project Gutenberg (<http://www.gutenberg.org/browse/scores/top>)
- A team of horses passed from Finglas with toiling plodding tread, dragging through the funereal silence a creaking waggon on which lay a granite block. The waggoner marching at their head saluted.
 - Ulysses - <http://www.gutenberg.org/files/4300/4300-h/4300-h.htm>
- There was no possibility of taking a walk that day. We had been wandering, indeed, in the leafless shrubbery an hour in the morning; but since dinner (Mrs. Reed, when there was no company, dined early) the cold winter wind had brought with it clouds so sombre, and a rain so penetrating, that further out-door exercise was now out of the question.
 - Jane Eyre - <http://www.gutenberg.org/files/1260/1260-h/1260-h.htm>
- Dorothy lived in the midst of the great Kansas prairies, with Uncle Henry, who was a farmer, and Aunt Em, who was the farmer's wife. Their house was small, for the lumber to build it had to be carried by wagon many miles. There were four walls, a floor and a roof, which made one room; and this room contained a rusty looking cookstove, a cupboard for the dishes, a table, three or four chairs, and the beds. Uncle Henry and Aunt Em had a big bed in one corner, and Dorothy a little bed in another corner. There was no garret at all, and no cellar--except a small hole dug in the ground, called a cyclone cellar, where the family could go in case one of those great whirlwinds arose, mighty enough to crush any building in its path. It was reached by a trap door in the middle of the floor, from which a ladder led down into the small, dark hole.
 - The Wizard of Oz - <http://www.gutenberg.org/files/55/55-h/55-h.htm>

A Really Long Literary Sentence

- Try parsing this
 - “Bloat is one of the co-tenants of the place, a maisonette erected last century, not far from the Chelsea Embankment, by Corydon Throsp, an acquaintance of the Rossettis' who wore hair smocks and liked to cultivate pharmaceutical plants up on the roof (a tradition young Osbie Feel has lately revived), a few of them hardy enough to survive fogs and frosts, but most returning, as fragments of peculiar alkaloids, to rooftop earth, along with manure from a trio of prize Wessex Saddleback sows quartered there by Throsp's successor, and dead leaves off many decorative trees transplanted to the roof by later tenants, and the odd un stomachable meal thrown or vomited there by this or that sensitive epicurean—all got scumbled together, eventually, by the knives of the seasons, to an impasto, feet thick, of unbelievable black topsoil in which anything could grow, not the least being bananas.”
- Do you know the source?

Quiz Answer

- “Gravity’s Rainbow” (by Thomas Pynchon), known for its use of very arcane words and complicated sentence (and plot) structure.
- Another such work is “Finnegans Wake” by James Joyce.
- Poetry is even more difficult.

Introduction to NLP

Funny Sentences

Silly Sentences

- Children make delicious snacks
- Stolen painting found by tree
- I saw the Rockies flying to San Francisco
- Court to try shooting defendant
- Ban on nude dancing on Governor's desk
- Red tape holds up new bridges
- Government head seeks arms
- Cameron wins on budget, more lies ahead
- Local high school dropouts cut in half
- Hospitals are sued by seven foot doctors
- Dead expected to rise
- Miners refuse to work after death
- Patient at death's door – doctors pull him through
- In America a woman has a baby every 15 minutes. How does she do that?

Ambiguous Recommendations

| Lexical ambiguity | |
|---|---|
| For a chronically absent employee | A man like him is hard to find. |
| For a dishonest employee | He's an unbelievable worker. |
| For a lazy employee | You would indeed be fortunate to get this person to work for you. |
| For the office drunk | Every hour with him was a happy hour. |
| Structural ambiguity | |
| For a chronically absent employee | It seemed her career was just taking off. |
| For a dishonest employee | Her true ability was deceiving. |
| For a stupid employee | I most enthusiastically recommend this candidate with no qualifications whatsoever. |
| For the office drunk | He generally found him loaded with work to do. |
| Scope ambiguity | |
| For an employee who is not worth further consideration as a job candidate | All in all, I cannot say enough good things about this candidate or recommend him too highly. |
| For an employee who is so unproductive that the job is better left unfilled | I can assure you that no person would be better for the job. |
| Other | |
| For a lazy employee | He could not care less about the number of hours he has to put in. |
| For an employee who is not worth further consideration as a job candidate | I would urge you to waste no time in making this candidate an offer of employment. |
| For a stupid employee | There is nothing you can teach a man like him. |

From Beatrice Santorini's collection

NILP