# Online Profiles Opinions, Inference, Perception

Elena Agapie

Qualifying Exam, Dec 2011

# How to disseminate relevant information to relevant people

# The online world today

### **Profiles Online**



**Krzysztof Gajos** @kgajos http://www.eecs.harvard.edu/~kgajos/

### David C. Parkes



Gordon McKay Professor of Computer Science School of Engineering and Applied Science, Harvard University

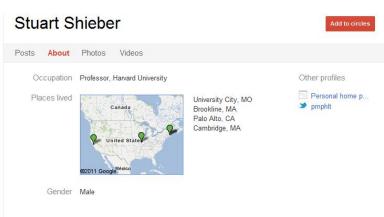
#### Research Interests:

Multi-agent systems, Game theory, Mechanism design, Electronic commerce, Stochastic optimization, Preference elicitation, Bounded rationality, Social computing.









## **News Aggregators**

#### Why green graduates deliver business benefits 🕣

The Guardian (blog) - 2 days ago

It led me to think about the value that **environment** and sustainability graduates bring to ... **green** economy and in delivering long-term growth for business. ...



The Guardian

#### Exelon deal: O'Malley is going for the wrong kind of 'green'

Baltimore Sun (blog) - 23 hours ago

In reality, the green most important to most families is the green they get at ... the lead on state government, transportation issues and the environment. ...

#### Surprise, California leads the way in electric vehicles

Autoblog (blog) - 19 hours ago

... the **environment**, and quality of life issues for all Californians. ... Valley Network and has broken new ground in the study of the emerging **green** economy.

#### Ford's **environment** and safety chief Sue Cischke retiring

Autoblog (blog) - 4 days ago

... Plug-in Hybrid test program and the overall state of the green car industry. ... Brown is currently vice president, Sustainability, Environment and ...



Environmental Leader

#### No. 21 Michigan State beats Bowling Green 74-60

Boston.com - 5 hours ago

The Bowling Green coach knew it would take another 20 to pull off a major upset in a tough environment. Michigan State went on 20-3 run early in the second ...



Toledo Blade

#### River revival +1

Boston.com - 5 hours ago

A gate adjustment near Green Harbor Marina is creating a better environment for native plants and fish in the river, seen from Route 139. ...



D /

#### San Francisco Interior Designer Ian Stallings Says Green Design ... [+1]

San Francisco Chronicle (press release) - 1 day ago

On the heels of last week's Gorgeous and **Green** Gala hosted by Global **Green**, ... "The materials used to make LED bulbs are also easier on the **environment**. ...



#### The Green Shield

Patch.com - 8 hours ago

About this column: A weekly look at the **environmental** and transportation issues in and around Shoreline and Lake Forest Park. Related Topics: **Green** Shield ...

#### GREEN CHRISTMAS Cutting back on holiday trash can save money

Finger Lakes Times - 12 hours ago

With a little effort and mindfulness, it's possible to have a green and white Christmas at the same time. According to the Environmental Protection Agency, ...

#### Green House Data Doubles Its Renewable Energy Purchases for Data ...

PR.com (press release) - 9 hours ago

Earlier in 2011, the company was recognized by being named to the US Environmental Protection Agency's (EPA's) Green Power Leadership Club, an honor given ...

# Individual Profiles are Important for News Delivery

# Online Profiles in the News Space

### Muted ceremony marks end of Iraq war - CNN.com

Original Source: www.cnn.com

(CNN) -- America's contentious and costly war in Iraq officially ended Thursday with an understated ceremony in Baghdad that contrasted sharply with its thundering start almost nine years ago.

U.S. troops lowered the flag of command that flew over the Iraqi capital, carefully rolled it and cased it in camouflage in accordance with Army tradition.

The quiet ceremony, under a bright Iraqi sun, was the opposite of the nighttime "shock and awe" bombardment of Baghdad that launched the war against Saddam Hussein in March 2003.

Justified by President George W. Brish on the grounds that Hussein was seeking weapons of mass destruction that he could share with terrorists such as al Qaeda, the invasion cased deep divisions in America and around the world.

CNN Photos: Looking back at 8 years of war in Iraq

After that, men and women from Maine to Hawaii began crossing the border into Iraq — and began dying or coming home with lifelong injuries.

Hussein's regime proved easy to topple, but no weapons of mass destruction were found, and the United States and its allies were left occupying a country where they were not greeted as liberators, despite the prediction of Bush's vice president, Dick Citemey!

Iraq erupted into sectarian violence, leaving U.S. troops to try to contain what threatened to become a civil war. Improvised explosive device became a household term, traumatic brain injuries a signature wound of the war

Defense Secretary Len Ponetta, who flew into Baghdad for Thursday's flag-lowering ceremony, recalled that when he visited in 2006 as a member of Bush's Iraq Study Group, "sectarian violence was skyrocketina, and it seemed as if nothino was working."

But, he said, "After a lot of blood spilled by Iraqis and Americans, the mission of an Iraq that could govern and secure itself has become real."

On Thursday, the Iraq war officially ended as President Barack Obama described it: not with a final battle but with a final march home for U.S. troops.

In all, the United States spent more than \$800 billion in Iraq.

Panetta reflected on a greater cost.

He said the United States was "deeply indebted" to all Americans in uniform. Nearly 4,500 of them were killed in this war, more than 30,000 wounded.



#### Dennis C Carlson Democrat Latest Office Sought: State Lower Chamber, MT Current View: 1993 - 2012 View Other Years All Years ▼ CAMPAIGN FINANCE, 1993 - 1994 \$2,660 RECEIVED 1 IN STATE VS. OUT OF STATE TOP INDUSTRIES contributions from individuals, in dollars opensecrets.org and follow them oney.org classify contribution data into about 100 industries. Public Sector Unions Education \$375 \$325 Transportation Unions in-state (90%) \$150 out-of-state (10%) Health Professionals Printing & Publishing Lawyers/Law Firms \$100 Non-Profit Institutions \$100 Crop Production & Basic Processing \$50 83% of the total amount raised came from an identifiable industry. INDIVIDUALS VS. PACS TOP CONTRIBUTORS ■ Employees ■ PAC in dollars includes contributions from an organization's employees, their family members, and its political action committee. \$300 Montana Education Association \$300 Individuals (52%) Teamsters/ibt Drive \$300 Montana Federation Of Teachers Unknown (2%) Montana State Afl-cio Jensen, Lorraine Briese David \$100 Jarvi, Patricia \$100

### www.poligraft.com

### **Author Profiles**

www.newstransparency.com (journalist profile wiki)



crackdown comes in one country, the servers can be

reach of any government or legal system."

switched on in another. This is meant to put it beyond the

An Obama "administration official," via Mike Allen's Politico Playbook: "It's worth noting that WikiLeaks is not an

#### Mike Allen



Add a new photo



Washington Post

The Free Lance-Star

Richmond Times-Dispatch

The New York Times

Websites/Blogs:

Politico

Edit Info

### **Author Profiles**



### GameStop now selling game-packed Android tablets from Samsung, Acer, and ASUS



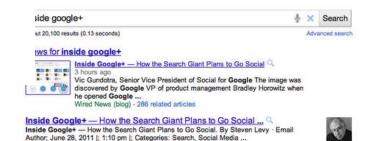


Written by

iPad), but four, the other three being special edition Android tablets from Acer, ASUS, and Samsung.

GameStop Now Selling Android Tablets In Select Stores Gamasutra Gamestop takes a stab at selling Android tablets Geek.com

See all 10 sources » Related: GameStop »



Inside Google+: how the search giant plans to go social Q

www.wired.com/epicenter/2011/06/inside-google-plus-social/

Jun 28, 2011 – Google formally makes its pitch to become a major force in social networking with the unveiling of Google+ to a limited upublic beta. arstechnica.com/.../inside-google-how-the-search-giant-plans-to-go-social.ars

Inside Google+: how the search giant plans to go social - Ars ... Q

4 posts - 4 authors - Last post: 13 hours ago

Google formally makes its pitch to become a major force in social networking ...

+ Show more results from arstechnica.com

arstechnica.com > Forums

Inside Google+ - How the Search Giant Plans to Go Social (Steven ... Quantum 18, 2011 - Steven Law / Edicarter Inside Googles - How the Search Giant Plans

Jun 28, 2011 – Steven Levy / Epicenter: Inside Google+ — How the Search Giant Plans to Go Social &md... www.businessinsider.com/inside-google-how-the-search-giant-plans-to-go-social-steven-

levyepicenter-2011-6

Steven Levy

## Tomorrow's World

#### HDR Photography - All about HDR -

Jan 4, 2009 - Want to know about HDR Photography? This page by Trey Ratcliff has the essential info, links to a tutorial, and lots of examples of HDR ... www.stuckincustoms.com/hdr-photography/ - Cached - Similar



Inside Google+ — How the Search Giant Plans to Go Social ... Q

Inside Google+ - How the Search Giant Plans to Go Social. By Steven Levy - Email Author, June 28, 2011 |: 1:10 pm |: Categories: Search, Social Media ... www.wired.com/epicenter/2011/06/inside-google-plus-social/



#### Is Nanosys' awesome new screen technology gonna be in iPad 3? I ... .

Jun 23, 2011 - When Nanosys starts shipping its screen technology later this year our lives will change forever. Every screen in your life will look dull ... scobleizer.com/.../is-this-awesome-new-screen-technology-gonna-be-in-ipad-3-i-hope-sowow/ - Cached



Robert Scoble

#### My Multimonitor Setup: Three Screens For One Computer Q

Feb 23, 2006 - Honestly, if you've never used a multi monitor setup in Windows, it really does feel like magic. Using the Settings tab of your Display ... daggle.com/my-multimonitor-setup-three-screens-for-one-computer-76 - Cached - Similar



Danny Sullivan

#### Prototype dual-screened 2-in-1 Android smartpad from Imeri preview ... Jun 23, 2011 - From the front it looks like yet another plain smartphone - dark, nondescript,

and maybe a little like an iPhone 4 that's had its ... www.engadget.com/.../prototype-dual-screened-2-in-1-android-smartpad-from-imerj-previ/ Tim Stevens



### louisgray.com: Youtify Turns YouTube Into Your Music Video Jukebox

May 28, 2011 - A cool site called Youtify (YouTube + Spotify, get it?) launched this month to tap this resource, letting you build your own playlists, ... blog.louisgray.com/.../youtify-turns-youtube-into-your-music.html - Cached



Louis Gray

#### iOS 5 Beta 2 Is Here, With Wireless Syncing Q

Jun 24, 2011 - iOS 5 Beta 2 is here. Of course there's lots of bugfixes-and wireless. syncingl-but we should know what else is inside shortly. [Apple] gizmodo.com/5815413/ios-5-beta-2-is-out - Cached



matt buchanan

### Jawbone Era Bluetooth Headset Is Best in Class for ... - Mashable Q

Jun 16, 2011 - The Jawbone Era, the newest headset in the company's arsenal, lives up to the high standards set by its predecessors. mashable.com/2011/05/16/jawbone-era-review/ - Cached



#### Swiffy: Google Launches New Tool to Convert Flash Into HTML5 ... Q

Jun 28, 2011 - Google just launched a new tool that makes it easy to convert basic Flash animations into HTML5. Swiffy, as this new tools is called, ... siliconfilter.com/swiffy-google-launches-new-tool-to-convert-flash-into-html5/



Google Chrome user agent

Sep 3, 2008 -- It's easy to find out what Google Chrome's user-agent is. Using the same trick as I did with the iPhone, I searched for phpinfo ... www.mattoutts.com/blog/google-chrome-user-agent/ - Cached - Similar







More videos for the truth about climate change »

### Facts about Climate Change Science and Ocean Acidification, truth ... climatechangefacts.info/

Unbiased climate change and Ocean Acidification information-an impact assessment scientist separates climate change facts from fiction.



An Open Letter to the Community ... - John Everett - Written Statement on Climate ...

### The Truth About Climate Change, Still Inconvenient - NYTimes.com

www.nytimes.com/2011/04/04/opinion/04krugman.html





### Climate change drops off 'hot topic' list



Central Florida News 13

New Scientist - 2 days ago

It is tempting to feed the BSA data into a narrative of increasing scepticism about **climate change**, but **the truth** is probably more prosaic: **climate change** ...

307 related articles

Georgia Tech plays role in Climategate 2.0 - Examiner.com

Evidence shows that man-made global warming is a hoax - Tulsa Beacon

More news for the truth about climate change »

### Global Climate Scam - Exposing the truth about global warming ...

www.globalclimatescam.com/

If I have to write a poor one, I make sure I get the truth to the recipient in a ... "Climate change is melting the snow and ice, and the rising water is getting too close ...



>>

More videos for the truth about climate change »

### <u>Facts about Climate Change Science and Ocean Acidification, truth ...</u> climatechangefacts.info/

Unbiased **climate change** and Ocean Acidification information-an impact assessment scientist separates **climate change** facts from fiction.

An Open Letter to the Community ... - John Everett - Written Statement on Climate ...

### The Truth About Climate Change, Still Inconvenient - NYTimes.com

www.nytimes.com/2011/04/04/opinion/04krugman.html

Apr 3, 2011 - The climate deniers can't handle it when one of their own goes off script.

### Climate change drops off 'hot topic' list



Central Florida News 13 New Scientist - 2 days ago

It is tempting to feed the BSA data into a narrative of increasing scepticism about **climate change**, but **the truth** is probably more prosaic: **climate change** ...

307 related articles

Georgia Tech plays role in Climategate 2.0 - Examiner.com

Evidence shows that man-made global warming is a hoax - Tulsa Beacon

More news for the truth about climate change »

### Global Climate Scam - Exposing the truth about global warming ... www.globalclimatescam.com/

If I have to write a poor one, I make sure I get **the truth** to the recipient in a ... "Climate **change** is melting the snow and ice, and the rising water is getting too close ...

### Facts about **Climate Change** Science and Ocean Acidification **climatechange** facts.info/ - Cached







More videos for the truth about climate change »

### Facts about Climate Change Science and Ocean Acidification, truth ... climatechangefacts.info/

Unbiased **climate change** and Ocean Acidification information-an impact assessment scientist separates **climate change** facts from fiction.





www.nytimes.com/2011/04/04/opinion/04krugman.html

Apr 3, 2011 - The climate deniers can't handle it when one of their own goes off script.



### Climate change drops off 'hot topic' list



Central Florida News 13

New Scientist - 2 days ago

It is tempting to feed the BSA data into a narrative of increasing scepticism about climate change, but the truth is probably more prosaic: climate change ...

307 related articles

Georgia Tech plays role in Climategate 2.0 - Examiner.com

Evidence shows that man-made global warming is a hoax - Tulsa Beacon

More news for the truth about climate change »

### Global Climate Scam - Exposing the truth about global warming ...

www.globalclimatescam.com/

If I have to write a poor one, I make sure I get the truth to the recipient in a ... "Climate change is melting the snow and ice, and the rising water is getting too close ...



Politico





More videos for the truth about climate change »

### <u>Facts about Climate Change Science and Ocean Acidification, truth ...</u> climatechangefacts.info/

Unbiased **climate change** and Ocean Acidification information-an impact assessment scientist separates **climate change** facts from fiction.



### The Truth About Climate Change, Still Inconvenient - NYTimes.com

www.nytimes.com/2011/04/04/opinion/04krugman.html

Apr 3, 2011 - The climate deniers can't handle it when one of their own goes off script.



### Climate change drops off 'hot topic' list



Central Florida News 13

New Scientist - 2 days ago

It is tempting to feed the BSA data into a narrative of increasing scepticism about climate change, but the truth is probably more prosaic: climate change ...

307 related articles

Georgia Tech plays role in Climategate 2.0 - Examiner.com

Evidence shows that man-made global warming is a hoax - Tulsa Beacon

More news for the truth about climate change »

### $\underline{\text{Global Climate Scam - Exposing the truth about global warming ...}}$

www.globalclimatescam.com/

If I have to write a poor one, I make sure I get the truth to the recipient in a ... "Climate change is melting the snow and ice, and the rising water is getting too close ...

## Opinions about climate change

**Environment organization** 

Environment related organizations





More videos for the truth about climate change »

### Facts about Climate Change Science and Ocean Acidification, truth ... climatechangefacts.info/

Unbiased climate change and Ocean Acidification information-an impact assessment scientist separates climate change facts from fiction.



### The Truth About Climate Change, Still Inconvenient - NYTimes.com

www.nytimes.com/2011/04/04/opinion/04krugman.html

Apr 3, 2011 - The climate deniers can't handle it when one of their own goes off script.



### Climate change drops off 'hot topic' list



Central Florida News 13

New Scientist - 2 days ago

It is tempting to feed the BSA data into a narrative of increasing scepticism about climate change, but the truth is probably more prosaic: climate change ...

307 related articles

Georgia Tech plays role in Climategate 2.0 - Examiner.com

Evidence shows that man-made global warming is a hoax - Tulsa Beacon

More news for the truth about climate change »

### Global Climate Scam - Exposing the truth about global warming ...

www.globalclimatescam.com/

If I have to write a poor one, I make sure I get the truth to the recipient in a ... "Climate change is melting the snow and ice, and the rising water is getting too close ...

### Facebook likes:

- Gay & Lesbian Victory
   Fund
- Green Bay Packers
- Working for Green
- Documenting GLBT Boston
- MEET (Middle East Education through Technology)





More videos for the truth about climate change »

### <u>Facts about Climate Change Science and Ocean Acidification, truth ...</u> climatechangefacts.info/



Unbiased **climate change** and Ocean Acidification information-an impact assessment scientist separates **climate change** facts from fiction.

An Open Letter to the Community ... - John Everett - Written Statement on Climate ...

### The Truth About Climate Change, Still Inconvenient - NYTimes.com







### Climate change drops off 'hot topic' list



Central Florid News 13

New Scientist - 2 days ago

It is tempting to feed the BSA data into a narrative of increasing scepticism about climate change, but the truth is probably more prosaic: climate change ...

307 related articles

Georgia Tech plays role in Climategate 2.0 - Examiner.com

Evidence shows that man-made global warming is a hoax - Tulsa Beacon

More news for the truth about climate change »

### Global Climate Scam - Exposing the truth about global warming ...

www.globalclimatescam.com/

If I have to write a poor one, I make sure I get the truth to the recipient in a  $\dots$  "Climate change is melting the snow and ice, and the rising water is getting too close  $\dots$ 

### Filter Results based on Opinions of Author





More videos for the truth about climate change »

### Facts about Climate Change Science and Ocean Acidification, truth ... climatechangefacts.info/



Unbiased **climate change** and Ocean Acidification information-an impact assessment scientist separates **climate change** facts from fiction.

An Open Letter to the Community ... - John Everett - Written Statement on Climate ...

### The Truth About Climate Change, Still Inconvenient - NYTimes.com







### Climate change drops off 'hot topic' list



Central Florida News 13

New Scientist - 2 days ago

It is tempting to feed the BSA data into a narrative of increasing scepticism about climate change, but the truth is probably more prosaic: climate change ...

307 related articles

Georgia Tech plays role in Climategate 2.0 - Examiner.com

Evidence shows that man-made global warming is a hoax - Tulsa Beacon

More news for the truth about climate change »

### Global Climate Scam - Exposing the truth about global warming ...

www.globalclimatescam.com/

If I have to write a poor one, I make sure I get the truth to the recipient in a ... "Climate change is melting the snow and ice, and the rising water is getting too close ...

### Filter Results based on Opinions of Author

### **Domain Specific**

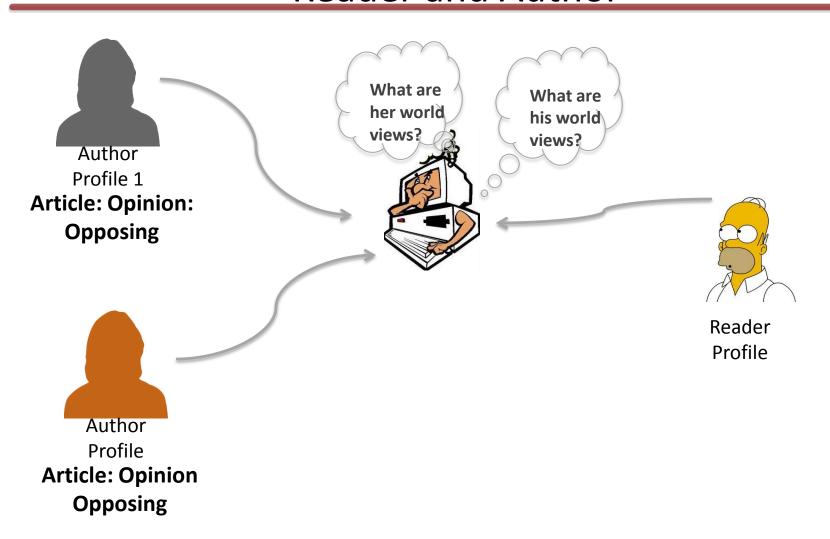
# Why News?

# To Provide Diverse Content from Sources that Readers Will Listen To

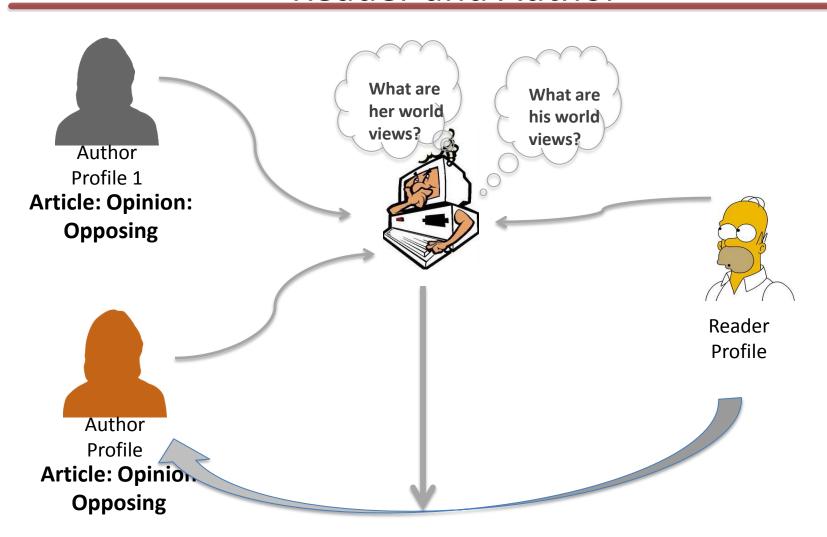
## Outline

- Goal
- Related work
- Experiments
- Future work

# Provide a Flow Between Profiles, Machines, Reader and Author



# Provide a Flow Between Profiles, Machines, Reader and Author



# Research Question (part 1 of 3)

A way to reveal and infer opinions through online profiles





# Research Question (part 2 of 3)

How do readers perceive information from these profiles?





# Research Question (part 3 of 3)

Do profiles we relate to affect how we perceive opinions we agree/don't agree with?



gun control is necessary



guns protect us

# Research Question (part 3 of 3)

Do profiles we relate to affect how we perceive opinions we agree/don't agree with?



gun control is necessary

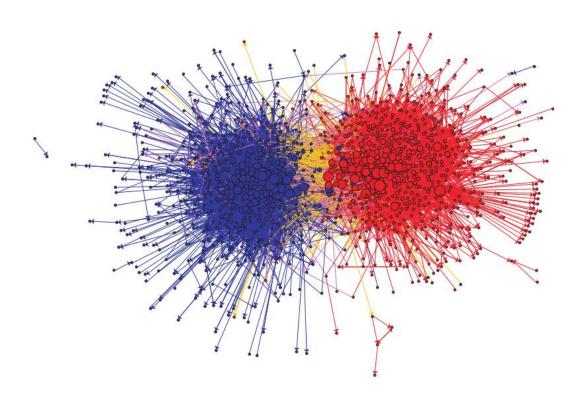


guns protect us

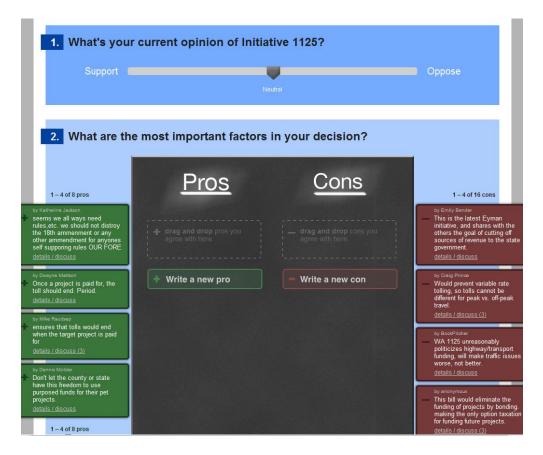
## Outline

- Goal
- Related work
- Experiments
- Future work

## Polarization of Political Blogosphere

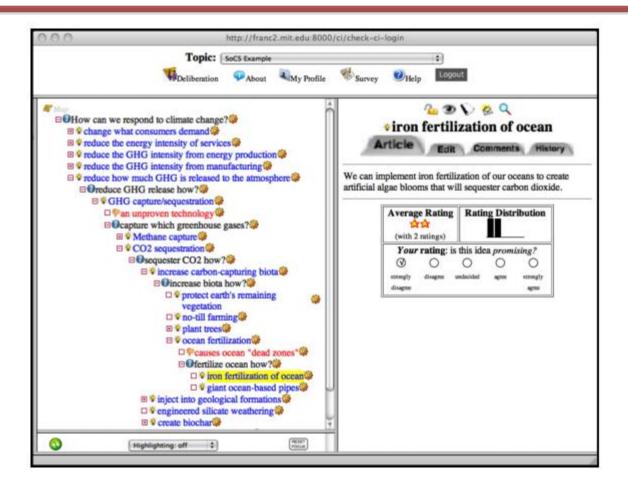


## Diverse Opinions through Engagement



http://www.livingvotersguide.org/

### **Diverse Opinions Through Argumentation**



http://deliberatorium.mit.edu/

# Identified Solutions to Make Diversity of Opinions Accessible

### Profiles Influence Message Perception

Books:

•The Immigrant Invasion: Threatening the American Way of Life

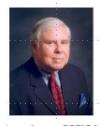
•The War on American Manhood

•Selfishness Is Not a Vice: Individual Freedom and the Public Good

•Why Big Government Doesn't Work



For HPV vaccination program. Studies show that nearly 50% of sexually active Americans now contract HPV, which is the leading cause of cervical cancer. Girls administered the vaccine will be protected from a variety of forms of HPV, which account for 70% of the cancers attributed to the virus. It is critical for vaccinations to be administered before the age at which girls are likely to become sexually active, because once they are exposed to HPV through sexual activity the vaccine won't be effective. The Food and Drug Administration has certified the vaccine as safe for use. Because so few girls even know what HPV is, it is illogical to suggest that the vaccination will cause them to become more sexually active or to engage in unsafe sex. It is therefore clear that universal vaccination of girls against HPV will make a major positive contribution to public health in America.



Books:

•The Crisis of Authority: The Assault on Traditional Values in America.

•How "Women's Liberation" Hurts Women and Men and Children, too!

•Community First: Fighting Selfishness in American Society

•The Limits of Individual Rights

Against HPV vaccination program. The rate of cervical cancer, a disease caused by HPV, is in fact extremely low: it accounts for less than 1% of all the cancer cases in the U.S. every year. Moreover, the vaccine offers no protection against types of HPV responsible for 30% of the cancers caused by the virus. Nevertheless, those who receive the vaccination are likely to assume it gives them complete protection. They are therefore more likely to engage in sexual activity, and to engage in sex without a condom, increasing their risk of contracting HPV and other sexually transmitted diseases, like HIV-AIDS, and of becoming pregnant. Finally, the HPV vaccine might well turn out to have unanticipated and dangerous side effects - just like many other medicines approved by the Food and Drug Administration. In sum, a universal HPV vaccine is likely to harm girls and women more than it helps.

### Profiles Influence Message Perception

For HPV vaccination program. Studies show that nearly 50% of sexually active Americans now contract HPV, which is the leading cause of cervical cancer. Girls administered the vaccine will be protected from a variety of forms of HPV, which account for 70% of the cancers attributed to the virus. It is critical for vaccinations to be administered before the age at which girls are likely to become sexually active, because once they are exposed to HPV through sexual activity the vaccine won't be effective. The Food and Drug Administration has certified the vaccine as safe for use. Because so few girls even know what HPV is, it is illogical to suggest that the vaccination will cause them to become more sexually active or to engage in unsafe sex. It is therefore clear that universal vaccination of girls against HPV will make a major positive contribution to public health in America.

Against HPV vaccination program. The rate of cervical cancer, a disease caused by HPV, is in fact extremely low: it accounts for less than 1% of all the cancer cases in the U.S. every year. Moreover, the vaccine offers no protection against types of HPV responsible for 30% of the cancers caused by the virus. Nevertheless, those who receive the vaccination are likely to assume it gives them complete protection. They are therefore more likely to engage in sexual activity, and to engage in sex without a condom, increasing their risk of contracting HPV and other sexually transmitted diseases, like HIV-AIDS, and of becoming pregnant. Finally, the HPV vaccine might well turn out to have unanticipated and dangerous side effects - just like many other medicines approved by the Food and Drug Administration. In sum, a universal HPV vaccine is likely to harm girls and women more than it helps.

### Profiles Influence Message Perception

Books:

•The Immigrant Invasion: Threatening the American Way of Life

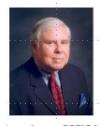
•The War on American Manhood

•Selfishness Is Not a Vice: Individual Freedom and the Public Good

•Why Big Government Doesn't Work



For HPV vaccination program. Studies show that nearly 50% of sexually active Americans now contract HPV, which is the leading cause of cervical cancer. Girls administered the vaccine will be protected from a variety of forms of HPV, which account for 70% of the cancers attributed to the virus. It is critical for vaccinations to be administered before the age at which girls are likely to become sexually active, because once they are exposed to HPV through sexual activity the vaccine won't be effective. The Food and Drug Administration has certified the vaccine as safe for use. Because so few girls even know what HPV is, it is illogical to suggest that the vaccination will cause them to become more sexually active or to engage in unsafe sex. It is therefore clear that universal vaccination of girls against HPV will make a major positive contribution to public health in America.



Books:

•The Crisis of Authority: The Assault on Traditional Values in America.

•How "Women's Liberation" Hurts Women and Men and Children, too!

•Community First: Fighting Selfishness in American Society

•The Limits of Individual Rights

Against HPV vaccination program. The rate of cervical cancer, a disease caused by HPV, is in fact extremely low: it accounts for less than 1% of all the cancer cases in the U.S. every year. Moreover, the vaccine offers no protection against types of HPV responsible for 30% of the cancers caused by the virus. Nevertheless, those who receive the vaccination are likely to assume it gives them complete protection. They are therefore more likely to engage in sexual activity, and to engage in sex without a condom, increasing their risk of contracting HPV and other sexually transmitted diseases, like HIV-AIDS, and of becoming pregnant. Finally, the HPV vaccine might well turn out to have unanticipated and dangerous side effects - just like many other medicines approved by the Food and Drug Administration. In sum, a universal HPV vaccine is likely to harm girls and women more than it helps.

### Hierarchist

#### Books:

- •The Immigrant Invasion: Threatening the American Way of Life
- •The War on American Manhood
- ·Selfishness Is Not a Vice: Individual Freedom and the Public Good
- •Why Big Government Doesn't Work



### Books:

- •The Crisis of Authority: The Assault on Traditional Values in America
- •How "Women's Liberation" Hurts Women
- and Men and Children, too!
- . Community First: Fighting Selfishness in American Society
- The Limits of Individual Rights

### Individualist

### Books:

- Against Race and Sex Discrimination, For Individual Freedom!
- •A Free Market Defense of Workplace Equality
- •Respect for Individual Choice: the Cornerstone of a Free and Equal Society
- Stop Treating Us Like Infants: Why Government Shouldn't Tell Adults What to Do





### Communitarian

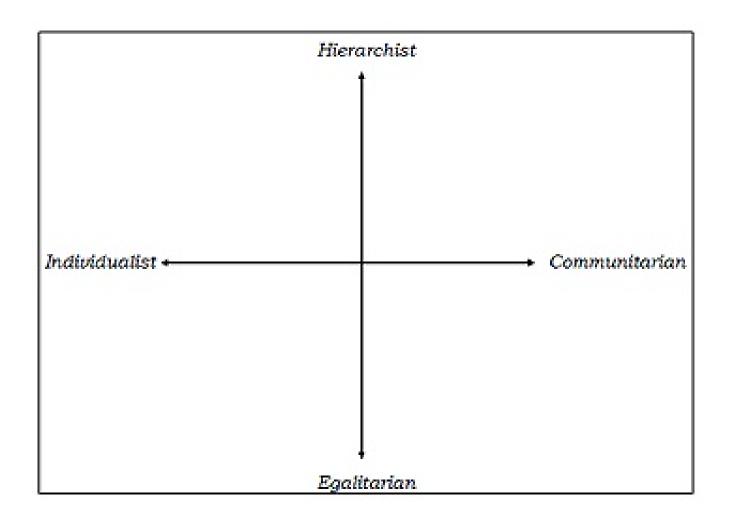
#### Books:

- ■Three Social Evils: Sexism, Racism, and Homophobia
- Raising Children: Avoiding Sexual Stereotypes
- ■People Before Profit! Fixing Corporate America
- Society as Family: One for All and All for One

Egalitarian

### Fig. 2 Culturally identifiable advocates

## Cultural Theory (Mary Douglas)



#### **Cultural Theory**

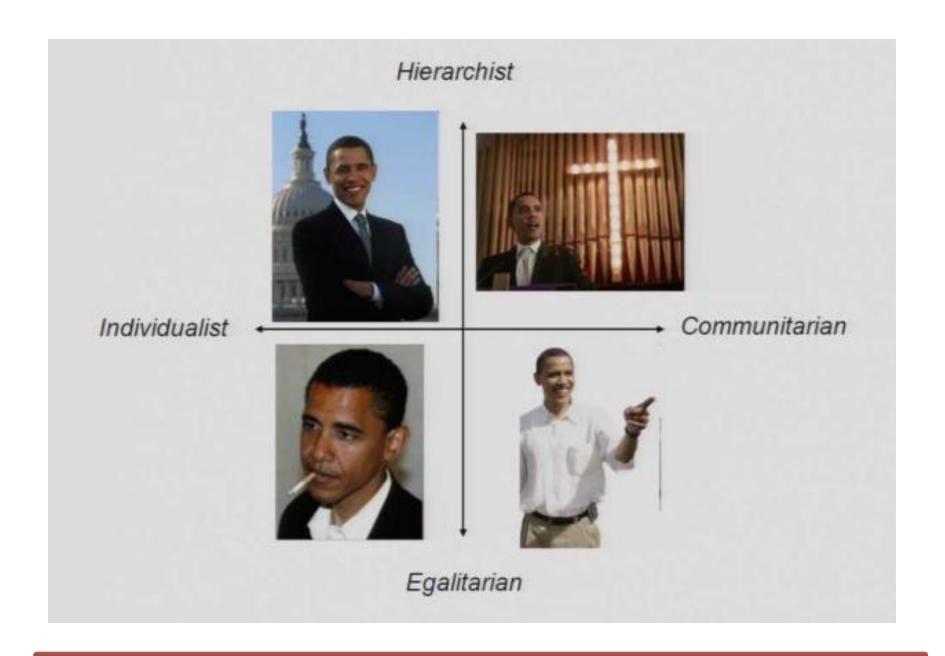
- Individualist Communitarian
  - Preference towards individualistic vs social ordering
  - Individual responsible for their own flourishing as opposed to collective provisioning

#### **Cultural Theory**

- Hierarchical Egalitarian
  - Preference for stratified social ordering
  - Entitlements to goods correspond to forms of social differentiation, as opposed to the egalitarian, where the distribution of goods is equal

#### Cultural Theory of Risk

People perceive risks related to society from the perspective of the cultural dimensions



# Who the Author Is Impacts How We Perceive the Message

#### Outline

- Problem Statement
- Related work
- Experiments
- Future work



**Inference** 



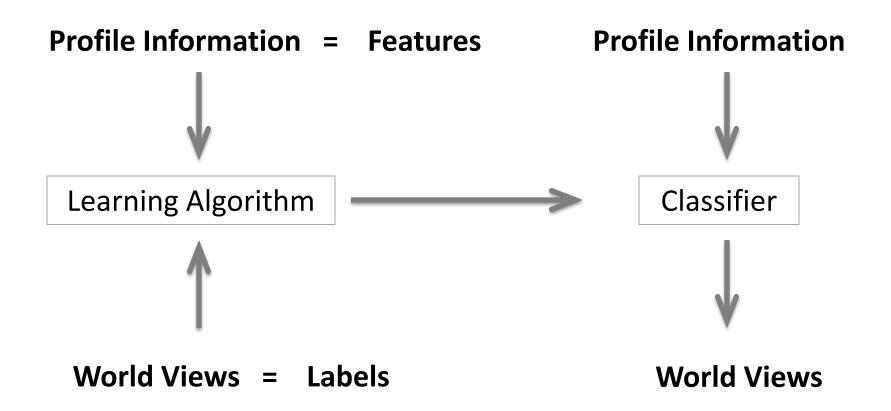
What is her profile?

**Opinion** 



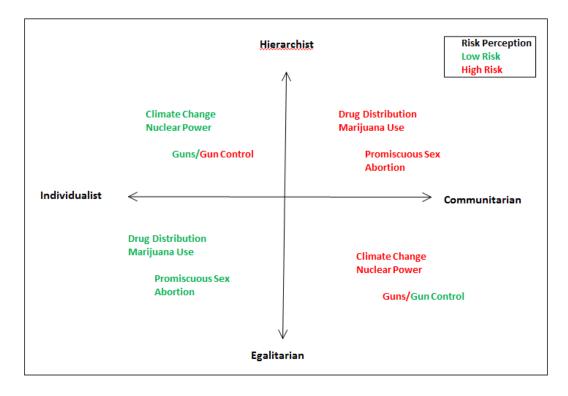
**Experiment 2** 

Infer world views from profiles



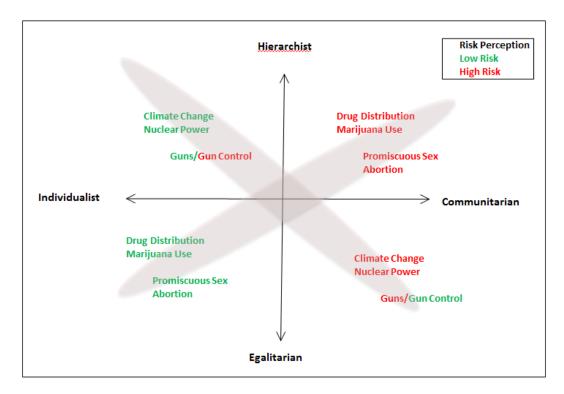
#### Selecting Features

How can online profiles of authors reveal their opinions?

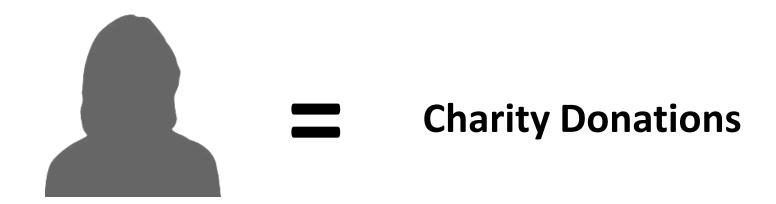


#### Selecting Features

How can online profiles of authors reveal their opinions?



## Constructing a Profile



#### Topics – Feature Selection

- GUNCONTROL/GUNOWNER
- NUCLEAR
- CLIMATE
- PROCHOICE (pro life)
- MARIJUANA / MARIJUANAMEDICAL/DRUGDISTRIBUTION
- GENTICALLY (modified foods)
- INTERNET
- GAYMARRIAGE

#### **Question Types**

- I would donate to the following drugs related charity:
  - Towards Reforming Marijuana Laws
  - Speaking Out Against the Legalization

#### • Similar:

- Pro Choice Action Group / Pro Life Charity
- Organization for the Supervision of Gun Ownership / Organization Against the Control of Guns by Governments

#### Participant



Charity Donations = Survey

**Survey World Views** 



Amazon Mechanical Turk (AMC) experiment

#### What kind of Charities Would You Donate to? What's your opinion on various social topics?

We would like you to tell us what you think about some of your preferences. We want to know what would be your favorite charities. We would also like to know your opinion on social topics of current interest. You will have to answer 25 questions.

For each of the questions please choose the charity you would be most likely to donate to. Explain your choices.

I would donate to the following Internet charity:

- Towards an Internet for All
- Awareness of the Hidden Internet

I would donate to the following Internet charity:

- Towards an Internet for All
- Awareness of the Hidden Internet

I would donate to the following energy related charity:

- Renewable Energy Foundation
- The Age of Nuclear Energy

I would donate to the following drugs related charity:

- Towards Reforming Marijuana Laws
- Speaking Out Against the Legalization

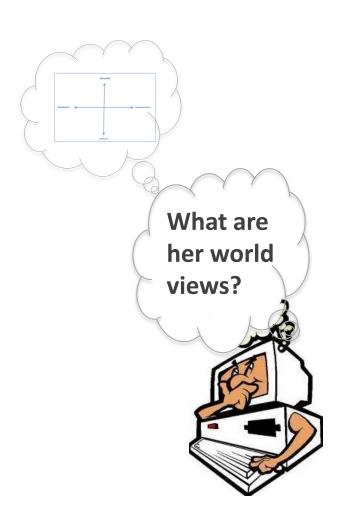
What determined your answer to the questions above?

#### Challenges

- Filtering spammers
- Filtering participants who didn't pay attention

- Make task "AMC" appropriate
  - Broke down in smaller steps

#### Results





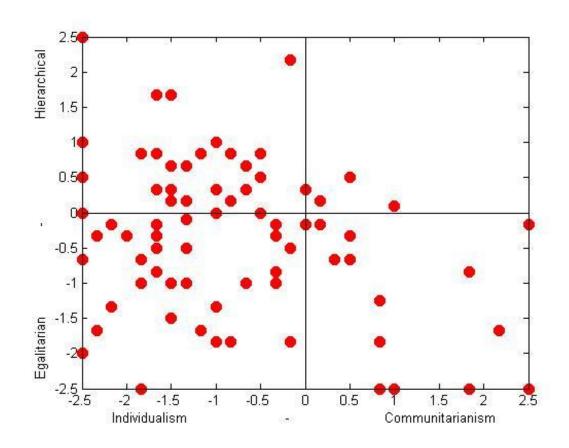
**Charity Profile** 

#### Results

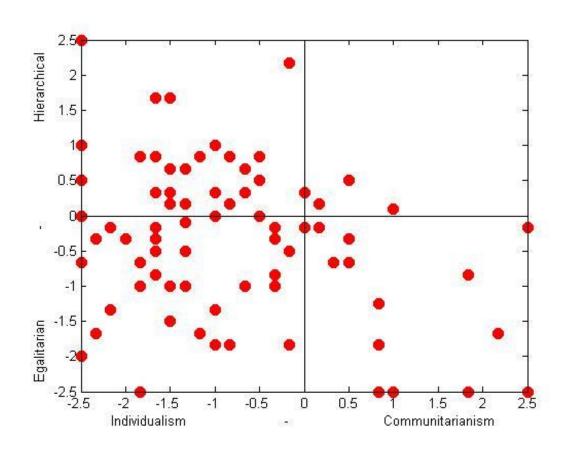
- 100 participant
- 22 discarded lack of valid answers

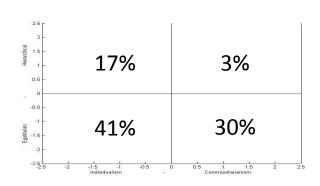
- AMC constraints:
  - US population only
  - 95% approval rate

## Cultural World View Survey



## Cultural World View Survey





## Results

Variable	Classifier	Success Rate		Precision	Recall
Correct Quadrant	Naïve Bayes	62%	IE	.65	.52
			IH	.58	.71
			EC	.63	.72
			НС	0	0
Correct EH	Naïve Bayes	87%	E	.89	.95
			Н	.76	.58
Correct IC	Naïve Bayes	71%	ı	.71	.74
			С	.57	.51

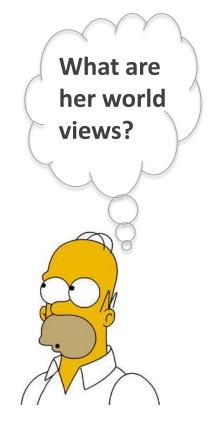
# Computers Can Infer World Views from Profiles

#### **EXPERIMENT 2**





**Charity Profile** 

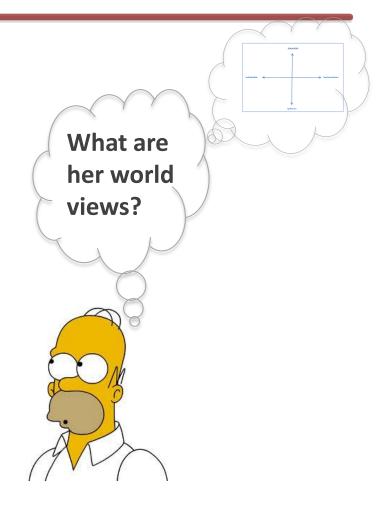


**Experiment 2** 

Do people perceive world view from profiles?

#### Personal Profile - Charity Donations:

- · Association for a Proper Use of Your Gun
- · The Foundation for Green Food
- · Foundation Against the Distribution of Drugs
- · Pro Choice Action Group
- · The Lies about Climate Change
- Awareness of the Hidden Internet
- Renewable Energy Foundation
- · Towards Reforming Marijuana Laws
- Organization for the Supervision of Gun Ownership
- · Association for Defense of Tradition and Family
- Organization for the Legalization of Medical Marijuana



#### What does a person donating to certain charities think?

Please answer the following questions the way the person that donates to the charities on the right would. This person has listed all the charities they ever donated to. Try to guess how they would respond. The list of charities will remain the same throughout all of the survey.

We would like you to tell us what you think about the person that donates to the charities on the right thinks. Please answer the questions below by trying to assess what the person with the charity donation profile on the right thinks.

People in our society often disagree about how far to let individuals go in making decisions for themselves. How strongly do you think the person donating to the charities on the right agrees or disagrees with each of these statements?

#### Personal Profile - Charity Donations:

- Association for a Proper Use of Your Gun
- The Foundation for Green Food
- Foundation Against the Distribution of Drugs
- Pro Choice Action Group
- The Lies about Climate Change
- · Awareness of the Hidden Internet
- Renewable Energy Foundation
- Towards Reforming Marijuana Laws
- Organization for the Supervision of Gun Ownership
- · Association for Defense of Tradition and Family
- Organization for the Legalization of Medical Marijuana

Sometimes government needs to make laws that keep people from hurting themselves.

Strongly Moderatelly Slightly Slightly Moderatelly Strongly Disagree Disagree Agree Agree Agree Agree

It's not the government's business to try to protect people from themselves.

Strongly Moderatelly Slightly Slightly Moderatelly Strongly Disagree Disagree Agree Agree Agree

What determined your answer to the questions above?

1 of 5 Next>

# Mierarchist Individualist Communitarian

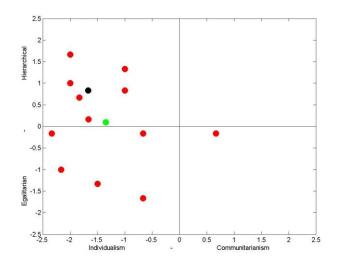
**Survey World Views** 

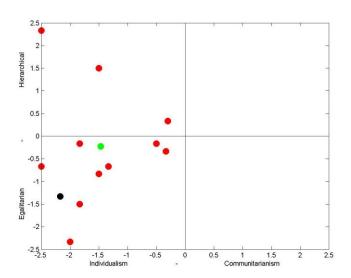
#### Personal Profile - Charity Donations:

- · Association for a Proper Use of Your Gun
- The Foundation for Green Food
- · Foundation Against the Distribution of Drugs
- · Pro Choice Action Group
- · The Lies about Climate Change
- · Awareness of the Hidden Internet
- Renewable Energy Foundation
- Towards Reforming Marijuana Laws
   Organization for the Supervision of Gun
- Organization for the Supervision of Gun Ownership
- · Association for Defense of Tradition and Family
- Organization for the Legalization of Medical Marijuana



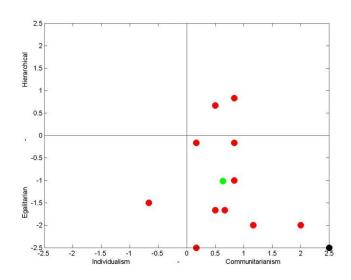
**Charity Profile** 

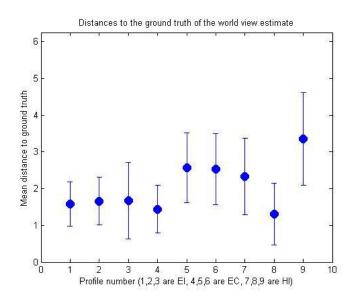


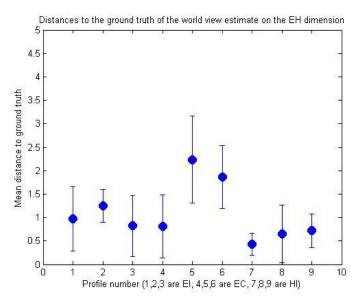


## World Views Estimates by AMT workers

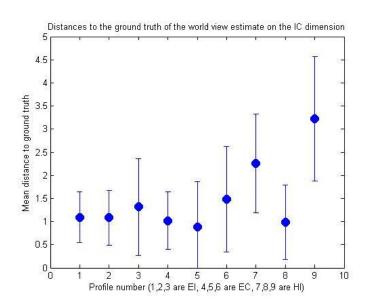
Black – original world view from Experiment 1 Red – estimates Green – mean of estimates





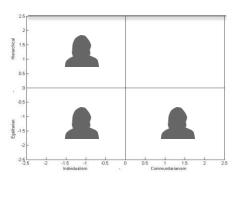


# Distance between AMT estimates of world views and original views from Experiment 1



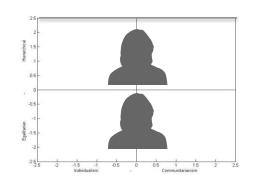
#### Correctly estimated profile category

#### **Classify Quadrant**



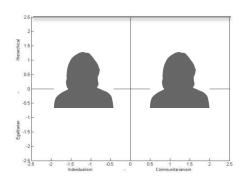
47%

#### Classify EH category



78%

#### Classify IC category



64%



62% 87% 71%

## Computers and Humans Performed Similar in Identifying World Views

#### **WORK IN PROGRESS**

# Does Attaching Charity Profiles to Opinions Affect the Perception of the Opinions?

# Research Question (part 3 of 3)

Do profiles we relate to affect how we perceive opinions we agree/don't agree with?



gun control is necessary



guns protect us

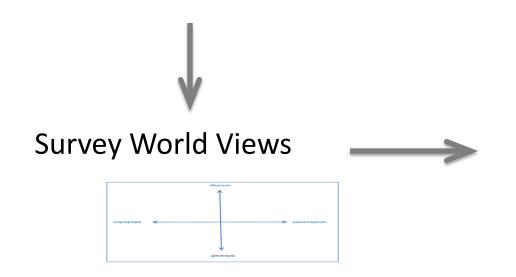
## Design

### 2x2x2 design

- Reader agrees with opinion presented (or not)
- Reader relates to the profile of the author they are in the same quadrant (or not)
- Profiles have charity information, or explicit opinions

## Experiment 1

## **Participant**



Give Opinion about guns



Read Opinion Piece with Author Profile



**Answer Questions** 

#### Opinion piece:

— We have 306million people in the US. Millions of lives are saved everyday by the private possession of guns, especially pistols. Few die. Once the crook breaks the pane of glass that separates you from him, your gun is the only thing that protects you from him.

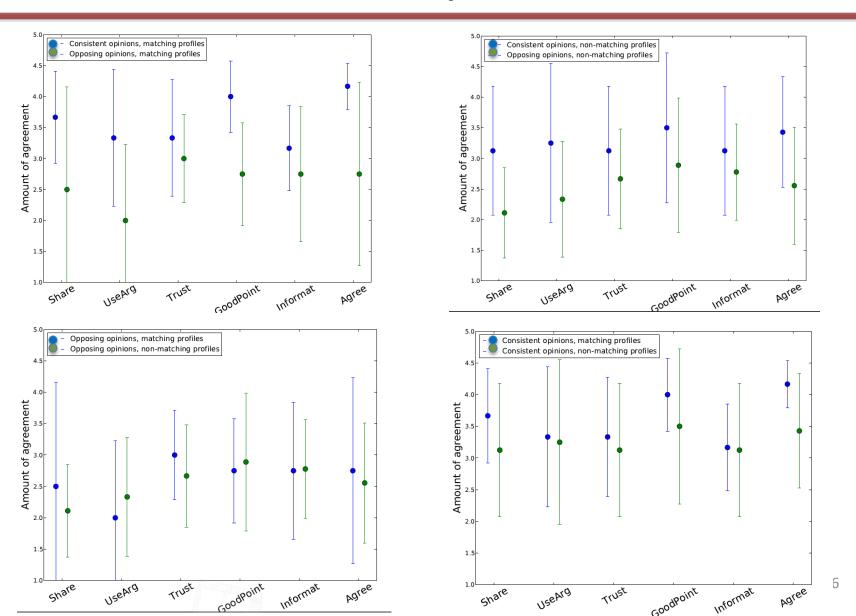
#### • Profile:

- The government needs to not get involved in making laws to keep people from hurting themselves.
- The government interferes far too much in our everyday lives.
- Our society would be worse off if the distribution of wealth was more equal.
- We have gone too far in pushing equal rights in this country.

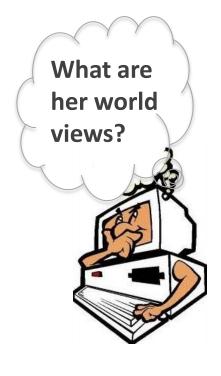
#### Profile

- Organization for the Supervision of Gun
   Ownership
- Global Foundation for a Green Lifestyle
- Towards an Internet for All
- Foundation for Support of Drug Users
- Association for Protecting the Citizens Against
   Guns
- Renewable Energy Foundation

# **Preliminary Trends**

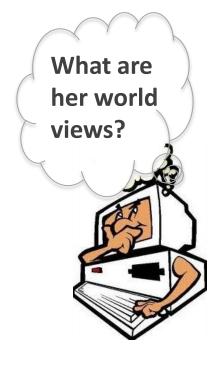


## **MORE WORK IN PROGRESS**





Infer World Views from Facebook Profiles









**Photo Profile** 

Infer if There is An Effect In How Different Photos are Perceived

## **LONGER TERM FUTURE WORK**

- Forums Opinion Discussion
  - Match people by common profiles to discuss something they don't agree with

 Identify what questions one needs to ask in a survey to identify opinions on a certain topic

What type of information to identify for an individual to asses their social views

- What profile information is useful to see about authors
  - For a domain specific question
  - How do we identify what this information should be?

# fin

## **Awesome People**

Krzysztof Gajos

Margo Seltzer

**David Parkes** 

Stuart Shieber

IIS: Anna, Dimitrios, Pao, Katharina, Ken, Hsiao, Steve

UID: Katrina Panovic, Juho Kim, Eirik Bakke, Max Goldmar Greg Little

CS people: Elaine Angelino, Phillip Guo, Alice Gao, Varun Kanade, Gregory Malecha

**Engineers: Justin Song** 

Psych&Political Sciences: Jen Skeffington

Sociologists: Mazen Elfakari, Anshul Kumar