Visual Analytics for Comments Analysis

Deokgun Park
Computer Science and Engineering Department
University of Texas at Arlington

Visual Analytics

Comment Analysis

Future Works


CRAY
CRAY
CRAY
CRAY
CRAY XC40

VS

Hard

Easy

Easy

Hard

Hard

Easy

Arithmetic
Logic

Easy

Hard

Hard

Easy

Traveling Salesman

NP hard

Arithmetic
Logic

Easy

Hard

Traveling Salesman

Hard

?

NP hard

Arithmetic
Logic

Easy

Easy

Hard

Customer Reviews

13,453

4.3 out of 5 stars

5 star	66%
4 star	16%
3 star	8%
2 star	4%
1 star	6%

See all 13,453 customer reviews

Can I trust this review?

Why customer buy?

What are problems?

Competitors/ alternatives?

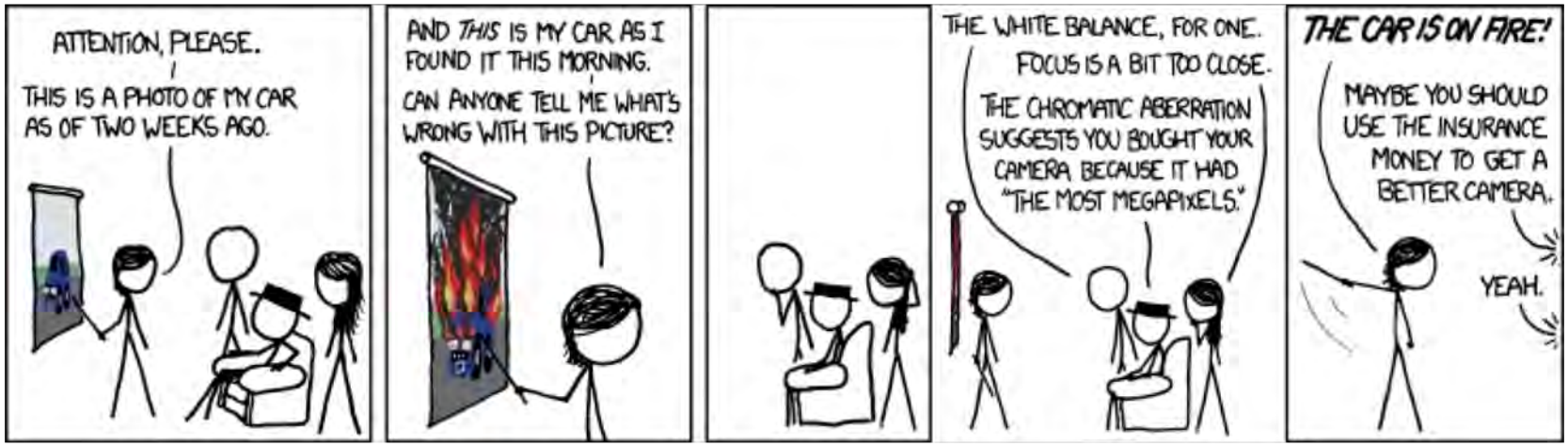
Open-ended Tasks

Open-ended tasks …

Unstructured data.

Image credit: Watterson, B. (1985). *Calvin and Hobbes*.

Open-ended tasks …



Different but justifiable answers.

Image credit: XKCD

Open-ended tasks

world knowledge & reasoning .

Image credit: LeFunny.net

Challenge is scalability.

Image credit: **Coping and Prevention (Stress and Quality of Worki**


Google
Spotify
YouTube
DOMAINS
facebook
41
THOUSAND
posts every
second
72
HOURS
of Video
uploaded
2
MILLION
Searches
14
New Songs
Added
70
New
Registered
15
THOUSAND
Tracks
downloaded
from iTunes
skype
1.8
MILLION
likes
1.4
MILLION
350GB
of data
Minutes Connecting
with Each other
WordPress
347
New Blog
Posts
flickr
20
MILLION
Photo
Views
571
New Created
WEBSITES
278
THOUSAND
Tweets
twitter
Transactions
17
THOUSAND
Walmart
New Tumblr
Photos
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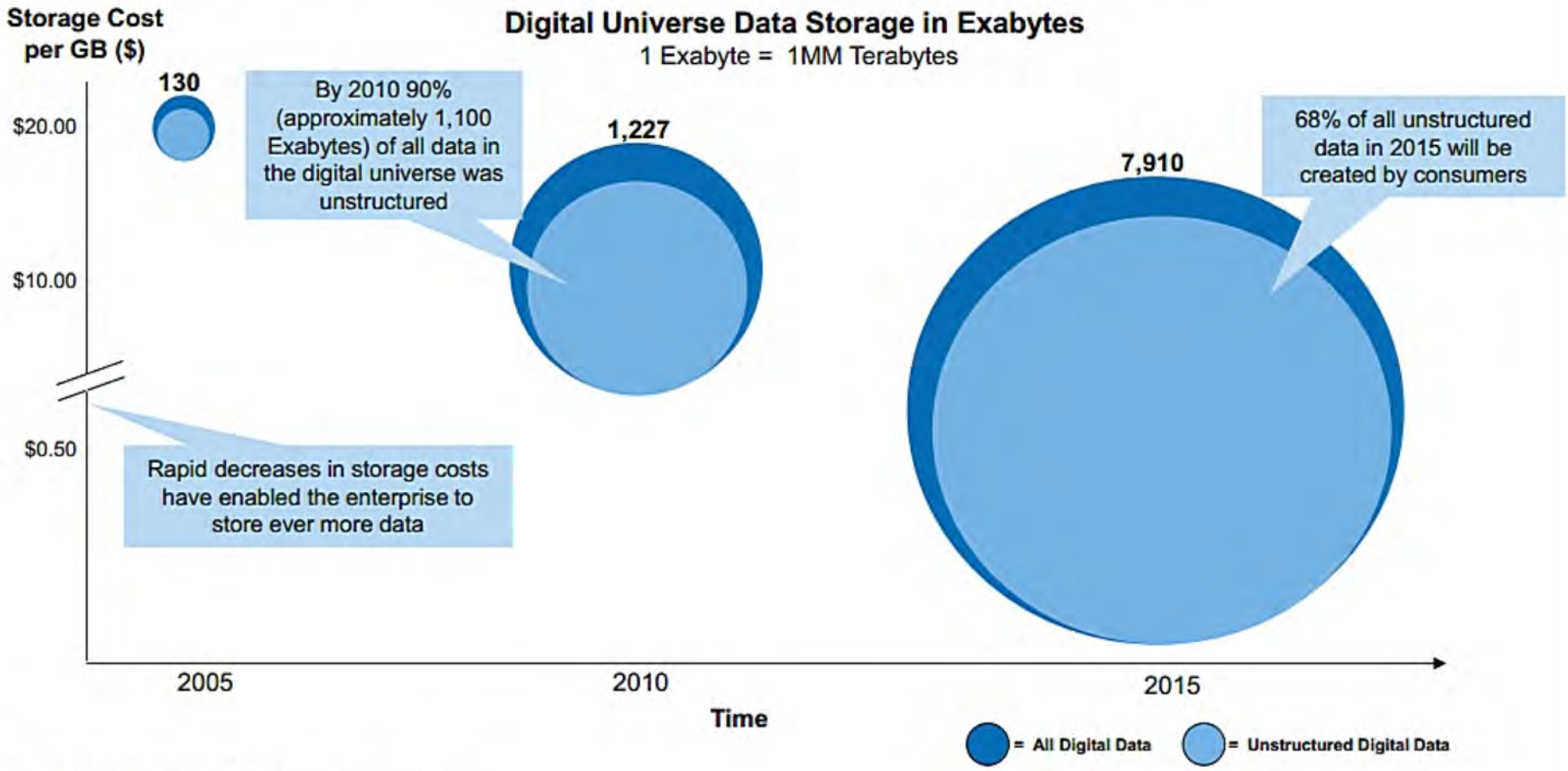
104
THOUSAND
Photos
Shared
snapchat
Amazon Sales
$83,000
Professional
searches
11
Active
Users
11
emails sent
204
MILLION
tumblr.
photos every
minute
3,600

Unstructured consumer data, called Big Data, represents majority of growth in data volume, up 56% CAGR since 2005



Source: IDC's Digital Universe Study, sponsored by EMC, June 2011

Image Credit: the1thing.com

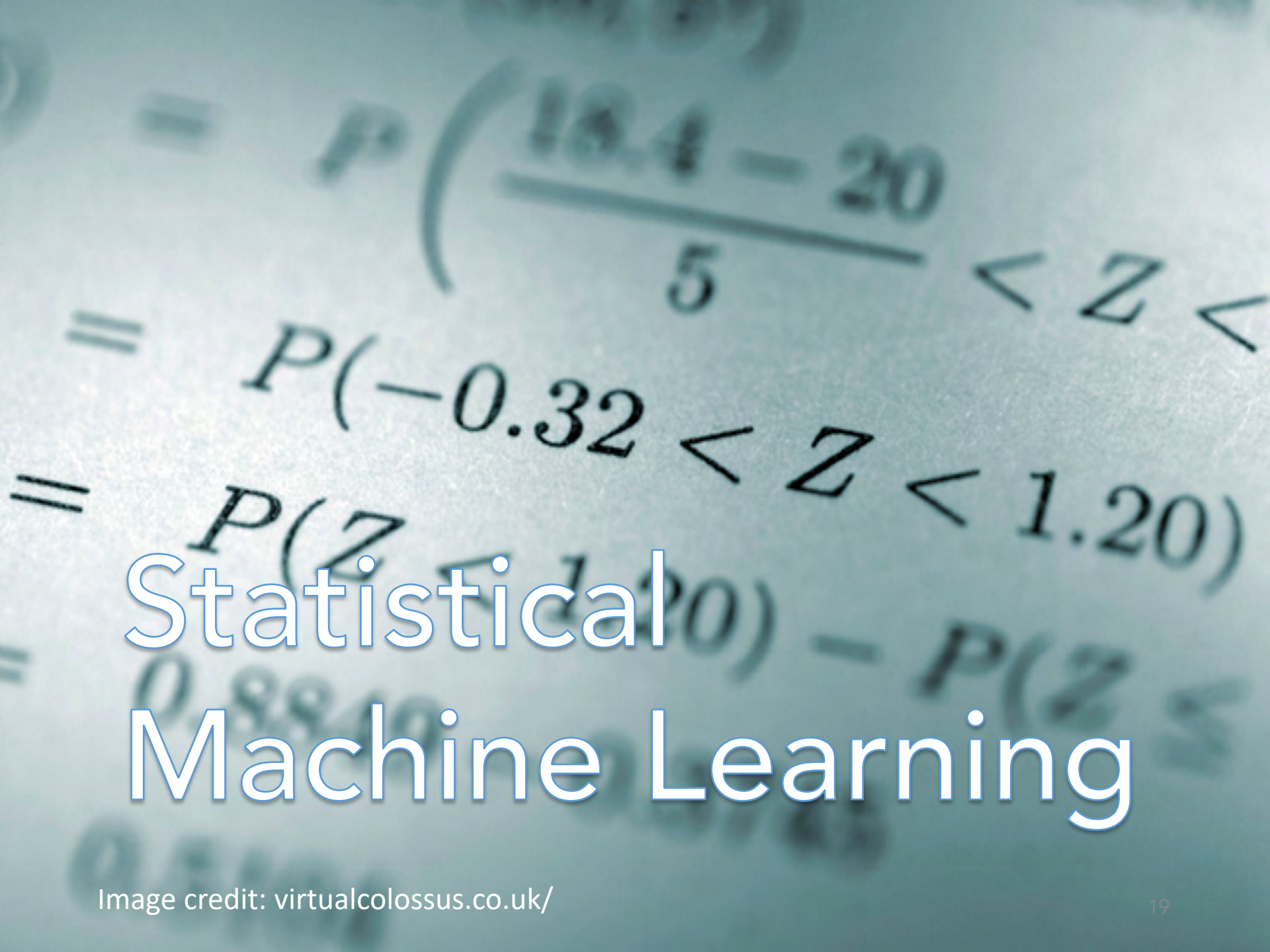


Image credit: virtualcolossus.co.uk/

Difficulty with ML

- Open-ended tasks in text mining…
  - Unstructured output
  - Multiple answers based on context
  - World knowledge and reasoning

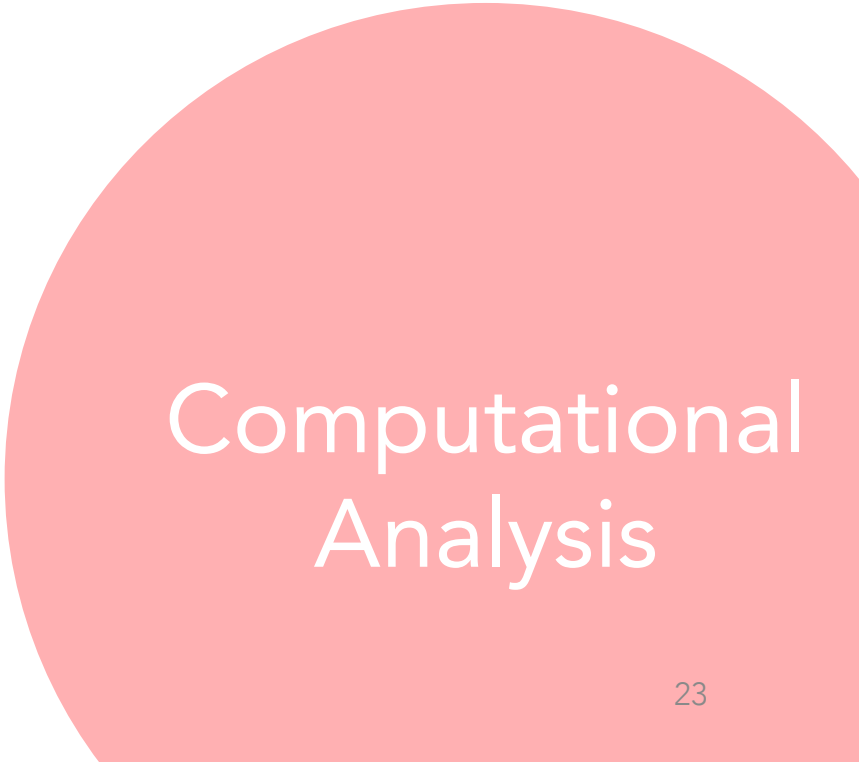
Difficulty with ML

- Open-ended tasks in text mining…
  - Unstructured output
  - Multiple answers based on context
  - World knowledge and reasoning

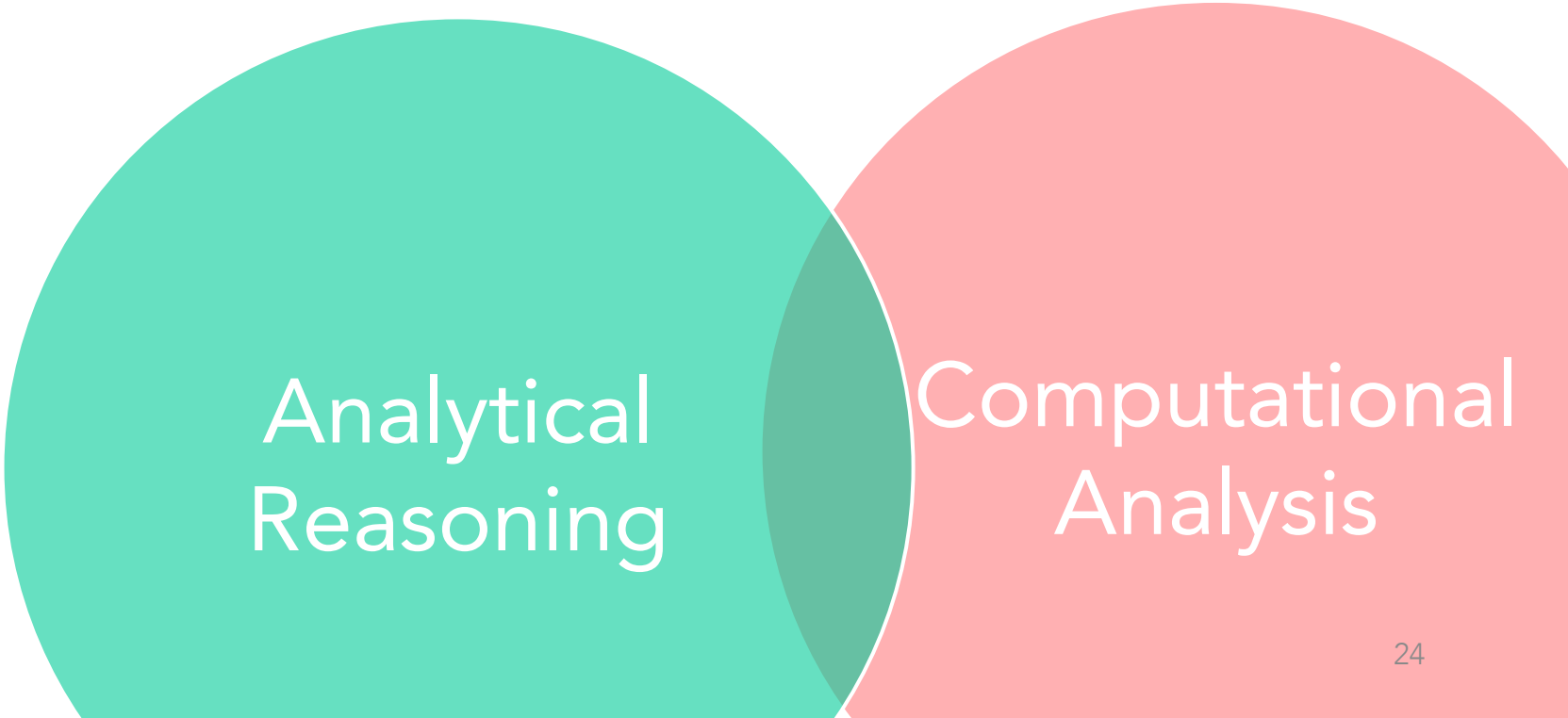
-> Requires Human in the Loop

Visual Analytics

Visual Analytics



Visual Analytics



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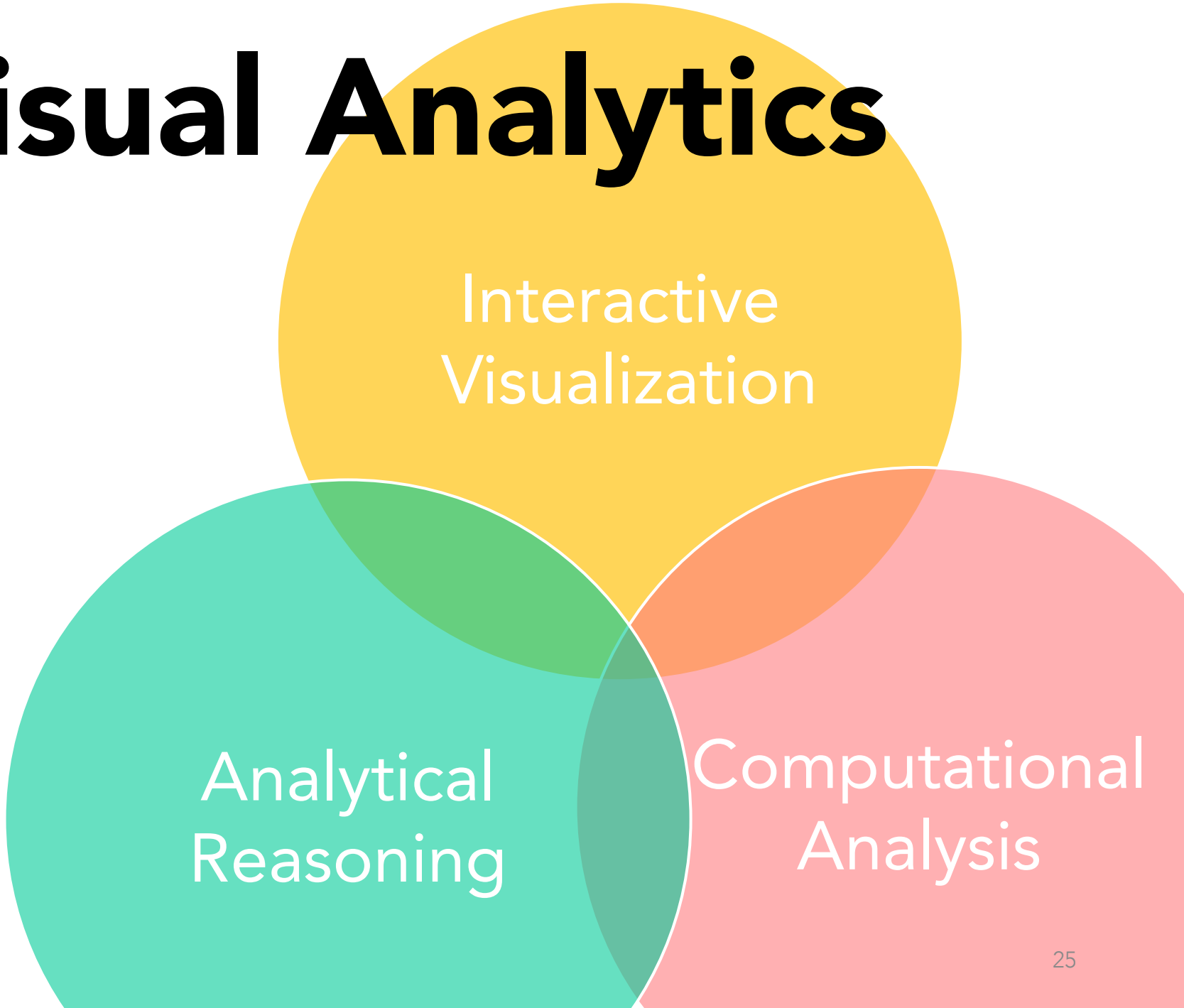
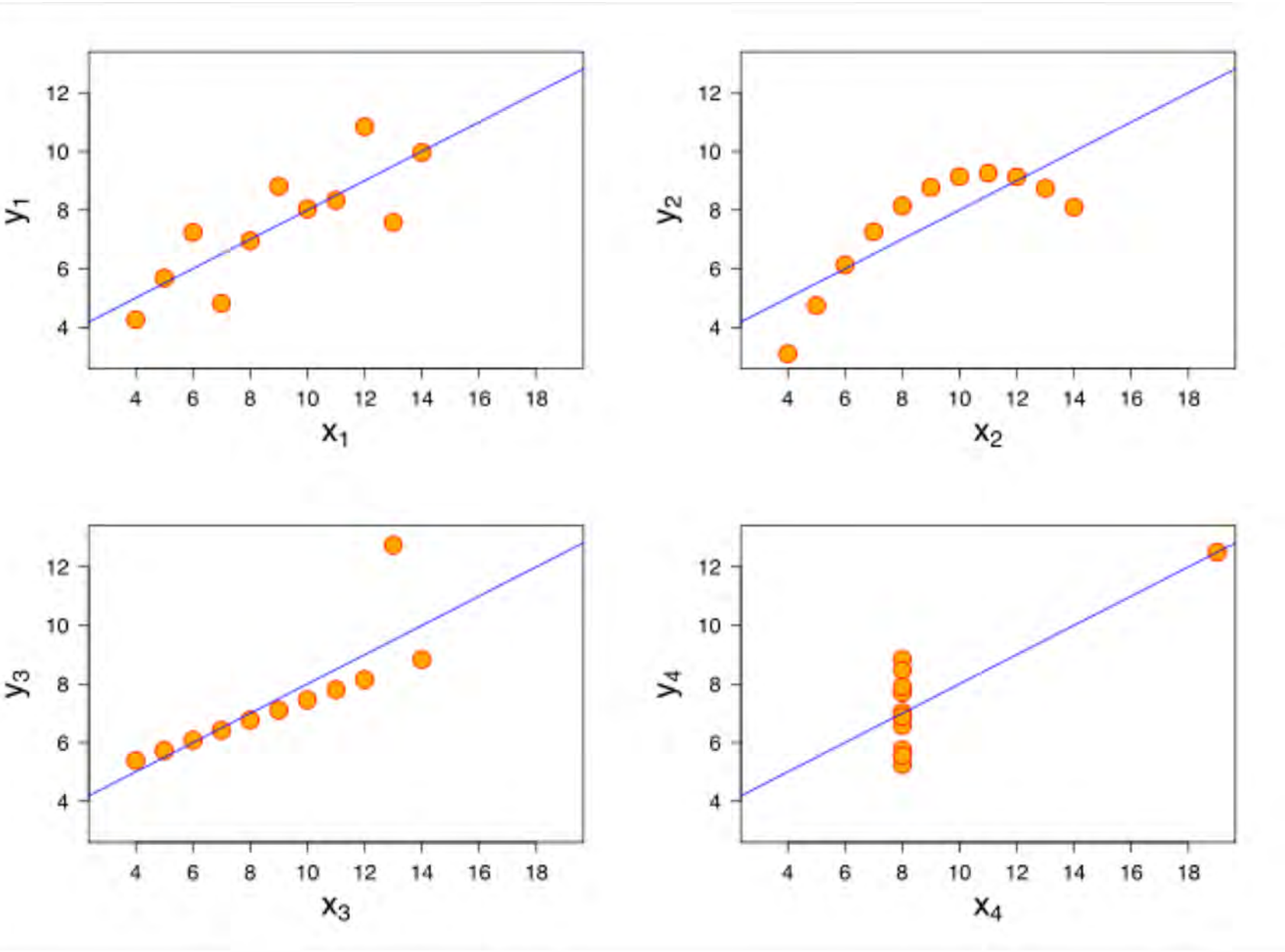


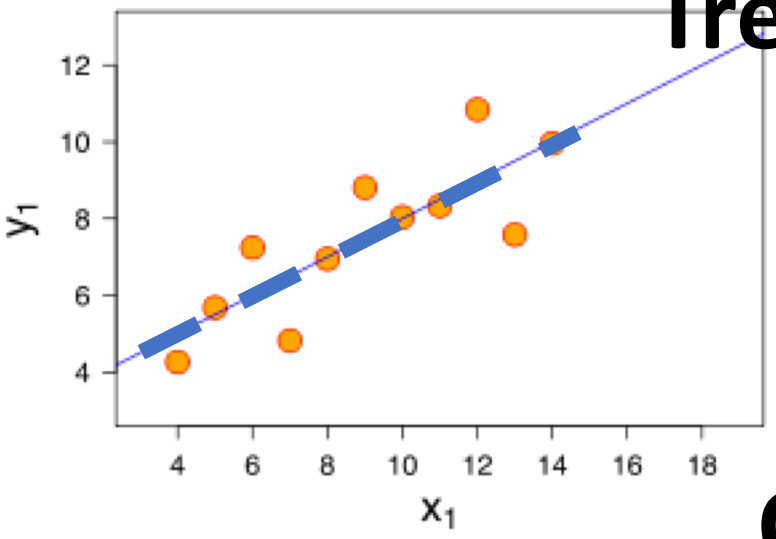
Anscombe's Quartet

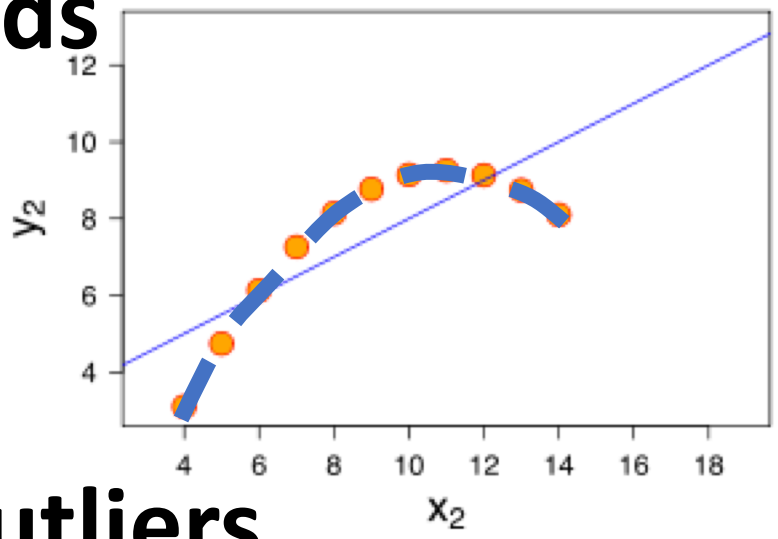
I		II		III		IV	
x	y	x	y	x	y	x	y
10.0	8.04	10.0	9.14	10.0	7.46	8.0	6.58
8.0	6.95	8.0	8.14	8.0	6.77	8.0	5.76
13.0	7.58	13.0	8.74	13.0	12.74	8.0	7.71
9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
12.0	10.84	12.0	9.13	12.0	8.15	8.0	5.56
7.0	4.82	7.0	7.26	7.0	6.42	8.0	7.91
5.0	5.68	5.0	4.74	5.0	5.73	8.0	6.89

Property	Value
Mean of x in each case	9 (exact)
Sample variance of x in each case	11 (exact)
Mean of y in each case	7.50 (to 2 decimal places)
Sample variance of y	4.122 or 4.127 (to 3 decimal places)
Correlation between x and y	0.816 (to 3 decimal places)
Linear regression	$y = 3.00 + 0.500x$ (to 2 and 3 decimal places, respectively)

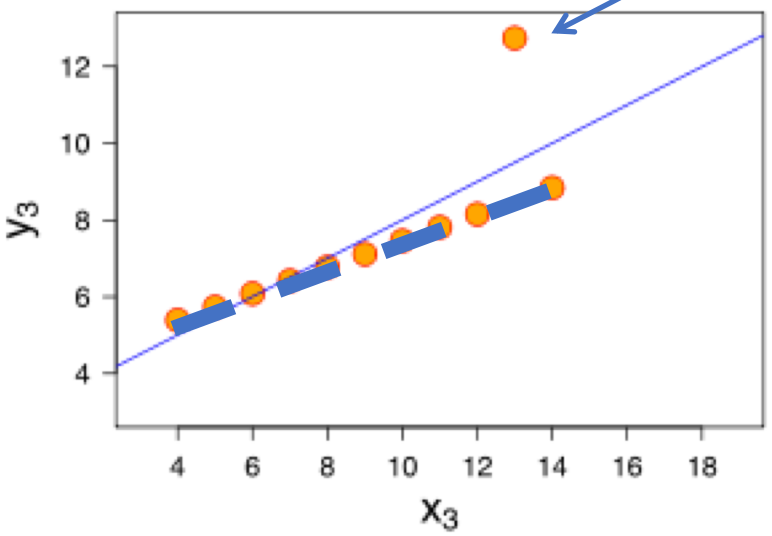

y1
x1
y2
x2
y3
x3
y4
x4
4
6
8
10
12
14
16
18

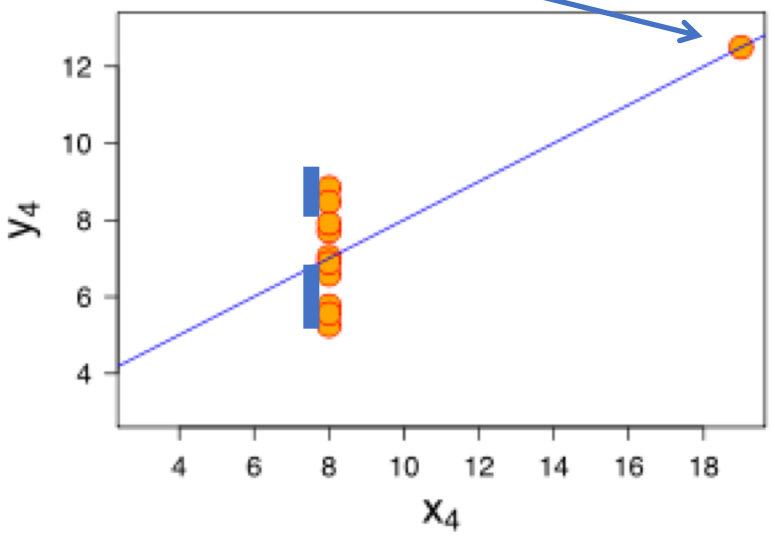
Trends





Outliers





Get answers to the questions you didn't ask yet.

Visual Analytics

vs

Visual Analytics

~~vs~~

with

Visual Analytics

Sensing mechanism

Human explores output using visualization

~~vs~~

with

Steering mechanism

Human steers the system to improve the output

Visual Analytics

Scales up
open-ended tasks.

Comment Analytics

Future Works

Visual Analytics

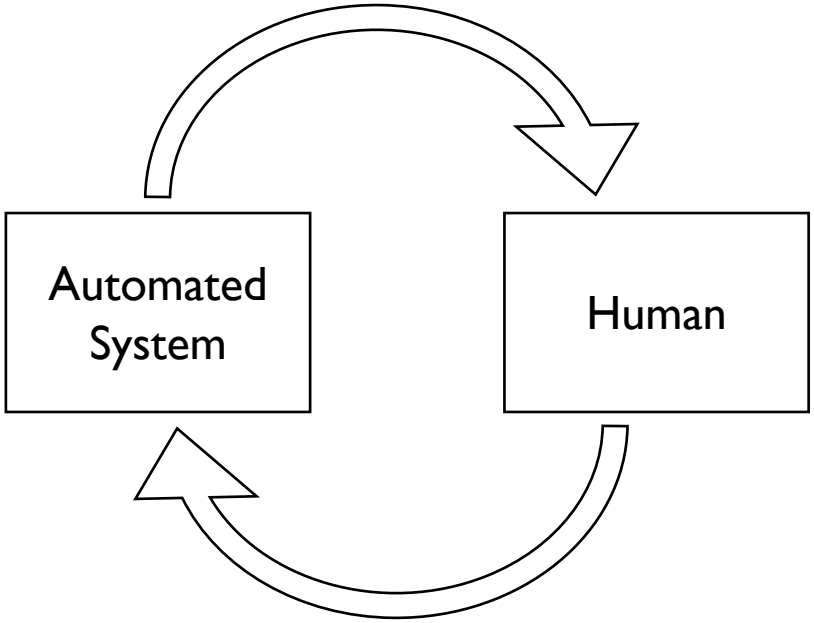
Scales up
open-ended tasks.

Comment Analytics

Future Works

Sensing mechanism

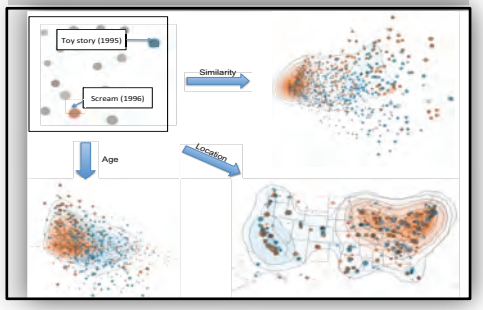
Human explores output using visualization



Steering mechanism

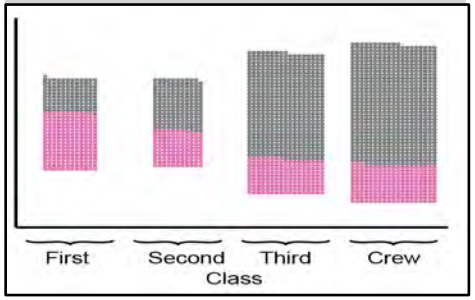
Human steers the system to improve the output

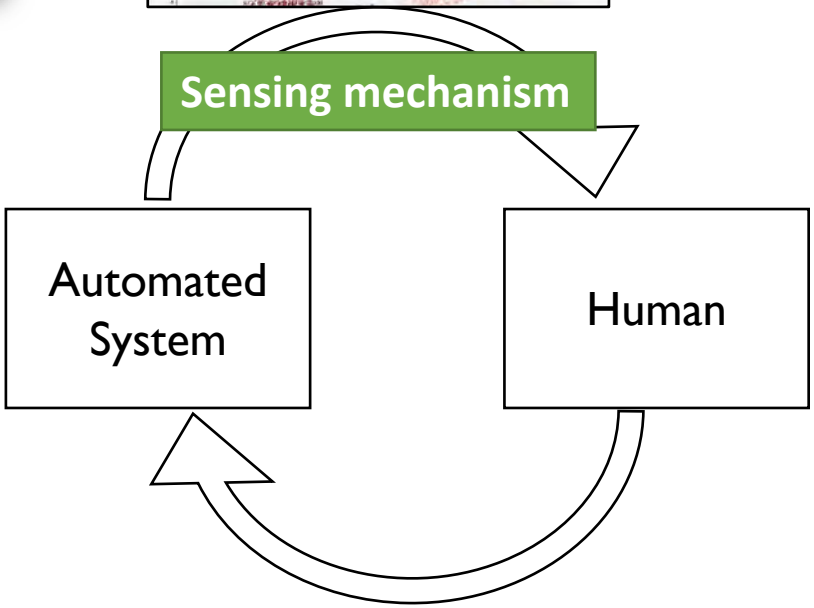
(a)Parallelspaces[HICSS'16]



(b) TopicLens[VAST'16]

(c) Gatherplot





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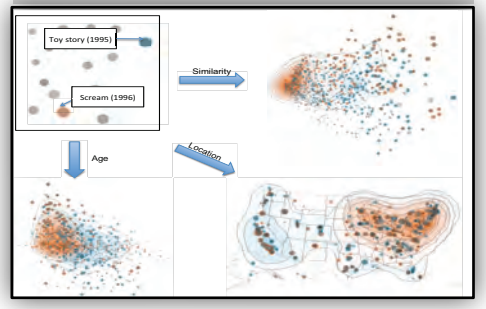

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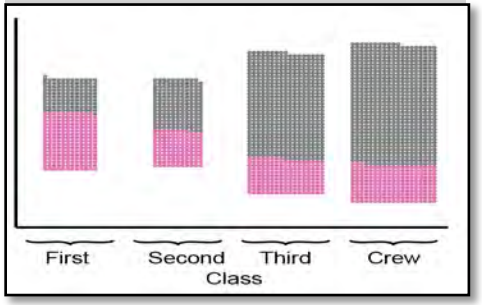
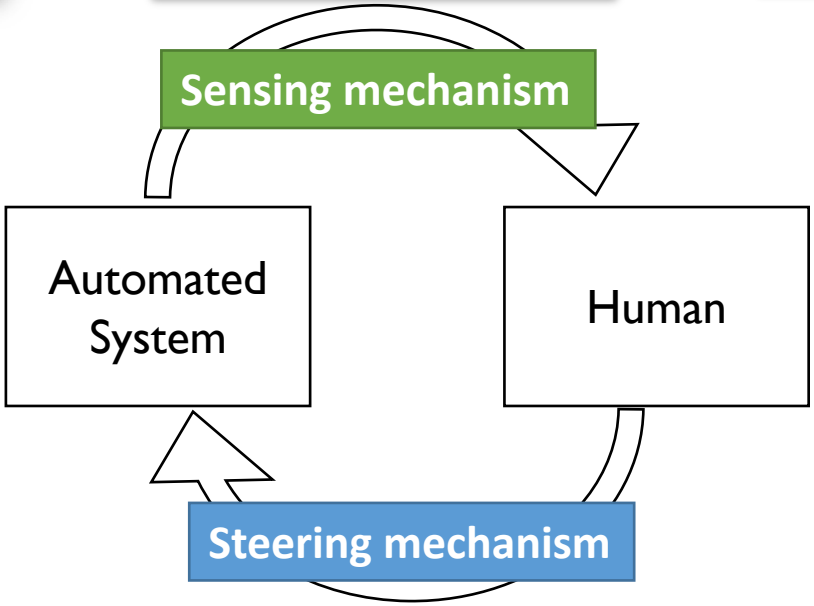
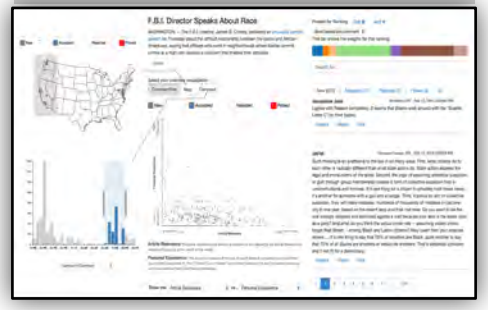
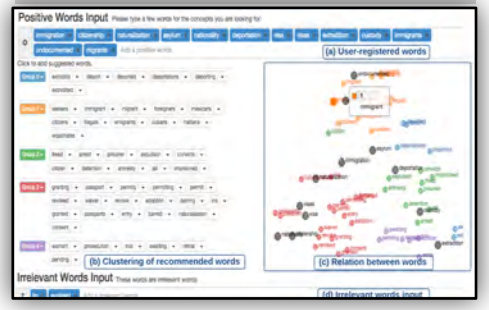




(d) CommentIQ[CHI'16]



(e) ConceptVector[VAST'17]



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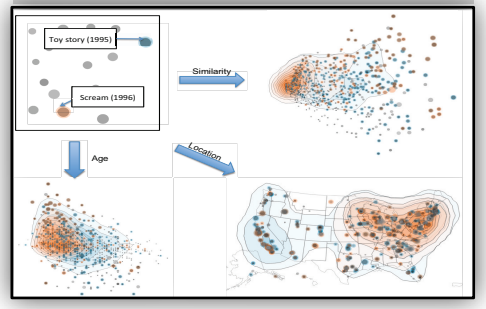

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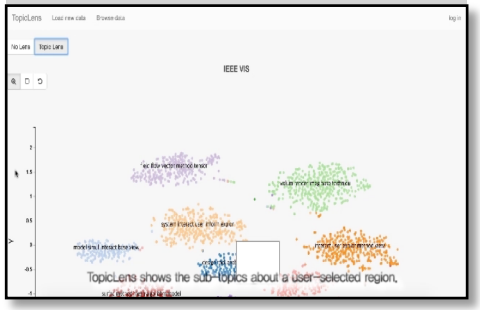
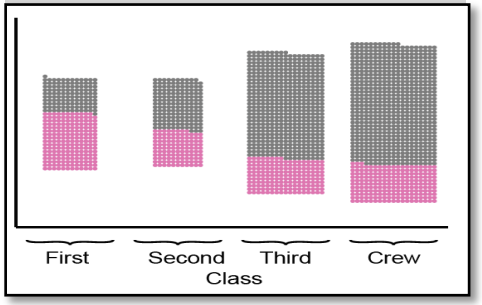


(c) Gatherplot



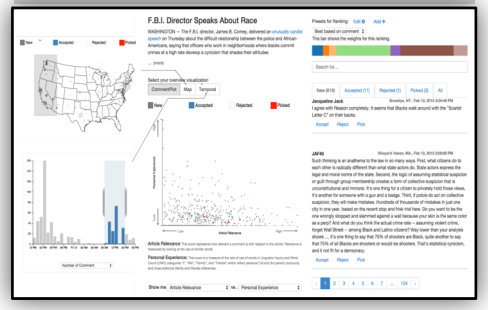
Sensing mechanism

Automated System

Human

Steering mechanism

(d) CommentIQ[CHI'16]



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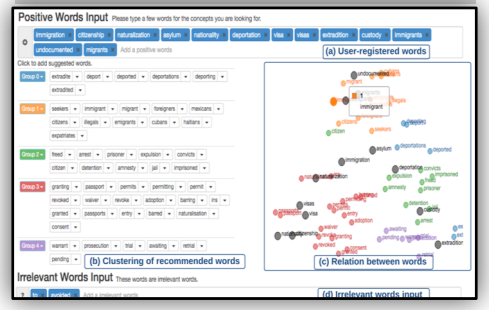
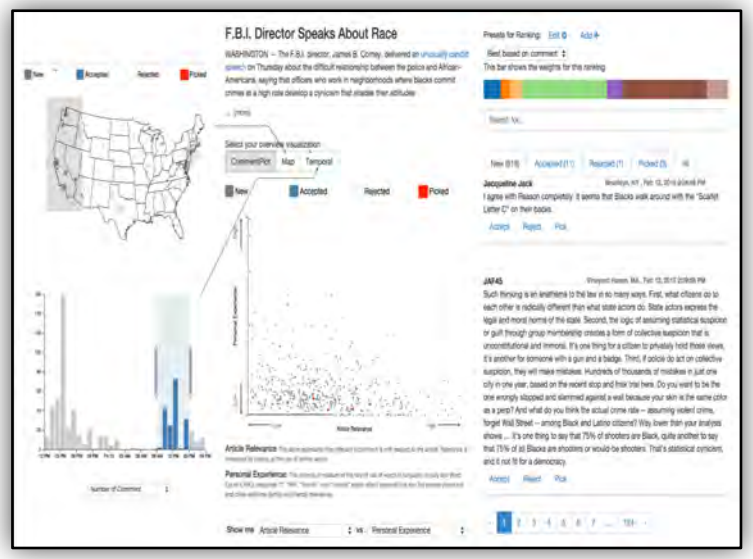


CommentIQ



Park, Deokgun, et al. "Supporting comment moderators in identifying high quality online news comments." *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. ACM, 2016.

Best Paper Honorable Mention

Comments

EDITORIAL
Bernie Sanders's Gift to His Party

DAVID BROOKS
The Choice Explosion

THE CONVERSATION
The Unpredictability Factor

The Opinion Pages | EDITORIAL

Bernie Sanders's Gift to His Party

By THE EDITORIAL BOARD MAY 3, 2016

1541 COMMENTS

Click here to read the best Times comments from the past week.

Share your thoughts.

All 1541 | Readers' Picks 1040 | NYT Picks 23 | Newest

skv nyc · 1 minute ago
The Democratic Party is not Bernie Sanders' party. He should start his own.

Reply · Recommend

Kenny Huntington, NY · 2 minutes ago
His party? How long has Bernie declared himself a democrat?

Reply · 1 Recommend

Nick NYC · 3 minutes ago
As a paid subscriber, I don't want to read any opinion pieces by the editorial board. Write them as individuals. When you endorse Clinton as the best candidate, but then tell the Democratic party to "listen" to Sanders, it feels hypocritical. To me it feels and sounds as though you are saying, "She knows more and should led the country. Yet, listen to Sanders because he knows when the knowledge lacks judgement, but he can't lead the country because he's unrealistic with the current congress so vote Clinton to keep the system going". Just stop.

Reply · 2 Recommend

Robert Roth NYC · 3 minutes ago
The Times sounds like it got triangulated.

In an ideal world,

In reality,

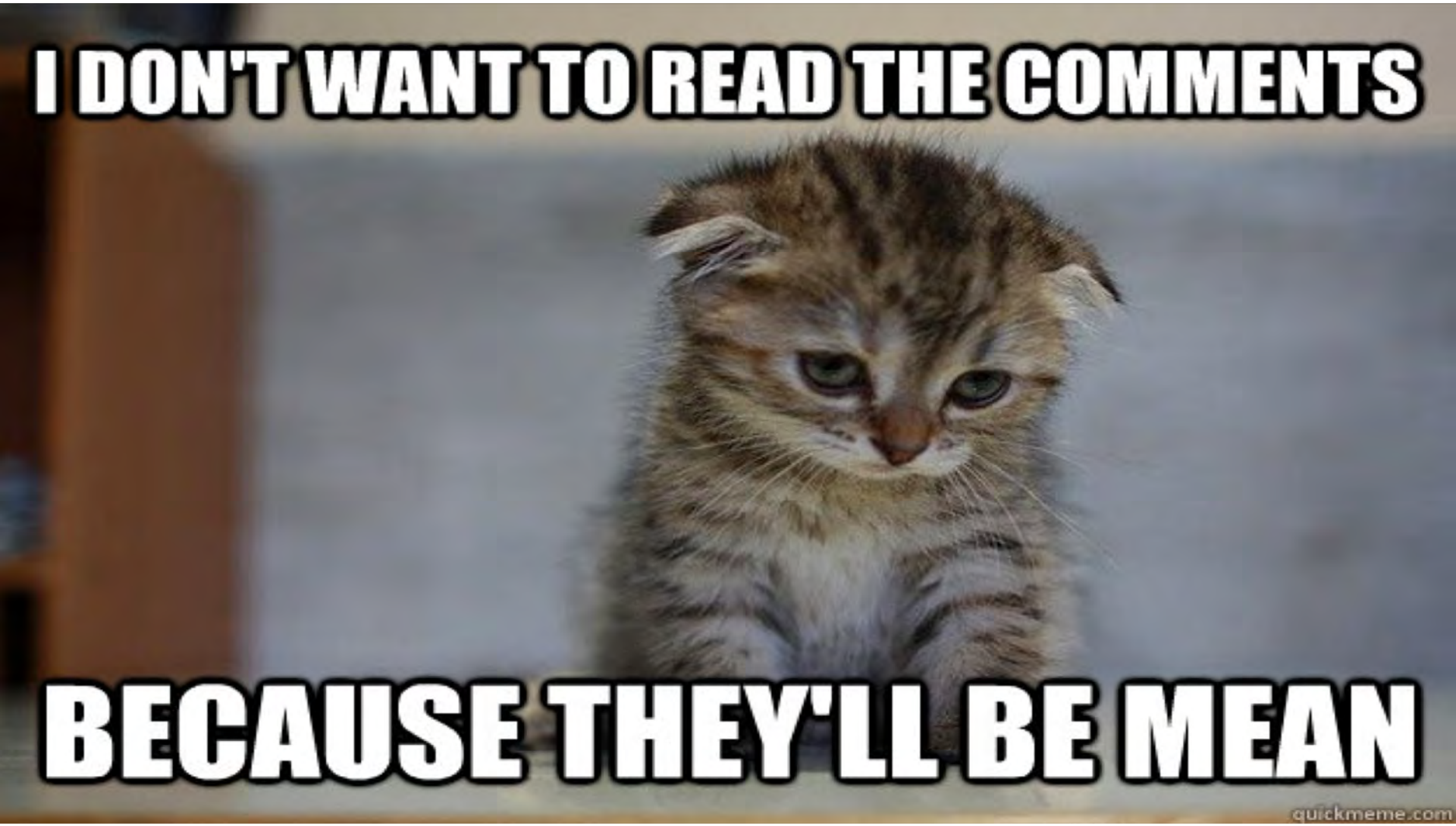


Image credit: quickmeme.com

To save the world

Image Credit: NYTimes Times Insider
11/23/2015 The Most Popular Reader Comments on The Times

The Opinion Pages | OP-ED CONTRIBUTOR

A Plea for Caution From Russia

What Putin Has to Say to Americans About Syria

By VLADIMIR V. PUTIN SEPT. 11, 2013

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MOSCOW — RECENT events surrounding Syria have prompted me to speak directly to the American people and their political leaders. It is important to do so at a time of insufficient communication between our societies.

Relations between us have passed through different stages. We stood against each other during the cold war. But we were also allies once, and defeated the Nazis together. The universal international organization — the United Nations — was then established to prevent such devastation from

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6,367 submitted

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4,447 accepted

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— 4,447 accepted

1,920 filtered

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In 3 hours

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4447 COMMENTS

Readers shared their thoughts on this article.

The comments section is closed. To submit a letter to the editor for publication, write to letters@nytimes.com.

All 4447 | Readers' Picks 1519 | NYT Picks 85

Citizen Texas · September 11, 2013

Say what you will about the Russians and Mr. Putin in particular. This reaching out is unprecedented. Surly our country and our leaders cannot ignore this gesture from the Russian government. We, at the very least, should meet this offer in sincerity and in the hope, that something good and lasting will come of the discussions between our two nations. The stakes are far too high to let this moment over take either one of our nations. Put aside mistrust and bad feeling for the moment, and try find and do something positive for the world. The killing needs to stop. We really can live in peace with each other if only we would really try.

2196 Recommend · Flag

David desJardins Burlingame CA · September 11, 2013

There is not "every reason" to believe that the opposition fighters used chemical weapons to murder large numbers of their own friends and family. They don't even have the capacity to deploy such weapons on this scale. The fact that Putin must resort to this incredible claim, and bury it deep in his statement, illustrates the weakness of his position on this point. It would be wonderful if the USA were not exceptional, if every nation would stand together against such crimes. But, when they don't, inaction and even obstruction on the part of others is no reason not to act ourselves. The founders of the United Nations did not envision that a seat on the Security Council was a license to ignore or overrule every tenet of international law, on the grounds that anything that any permanent member of the Security Council allows must therefore be allowed. I hope that Russia will fulfill it's

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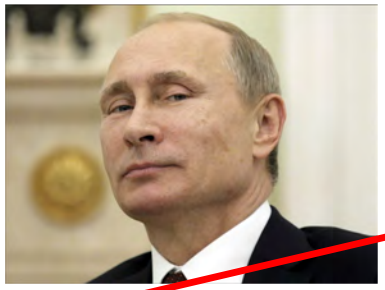

4447 COMMENTS

Readers shared their thoughts on this article.

The comments section is closed. To submit a letter to the editor for publication, write to letters@nytimes.com.

All 4447 | Readers' Picks 1519 | NYT Picks 85

Citizen Texas · September 11, 2013

Say what you will about the Russians and Mr. Putin in particular. This reaching out is unprecedented. Surly our country and our leaders cannot ignore this gesture from the Russian government. We, at the very least, should meet this offer in sincerity and in the hope, that something good and lasting will come of the discussions between our two nations. The stakes are far too high to let this moment over take either one of our nations.

The Opinion Pages | OP-ED CONTRIBUTOR

United Nations — was then established to prevent such devastation from

founders of the United Nations did not envision that a seat on the Security Council was a license to ignore or overrule every tenet of international law, on the grounds that anything that any permanent member of the Security Council allows must therefore be allowed. I hope that Russia will fulfill it's

The world of comments

Worst Best

Worst

Best

Redundant

No new information
Consensus

Worst

Best

Irrelevant

Add noise

Redundant

No new information
Consensus

Worst

Best

Inappropriate

Harmful
Negative Loop

Irrelevant

Add noise

Redundant

No new information
Consensus

Image Credit: Luis Loli from Flickr
https://www.flickr.com/photos/luisloli/558346676/in/pool-1377281@N25/

Image Credit: Wallpapers
http://wallpaperswide.com/battle_of_geonosis-wallpapers.html

Online and Uncivil? Patterns and Determinants of Incivility in Newspaper Website Comments

Kevin Coe[1], Kate Kenski[2,3], & Stephen A. Rains[2]

1 Department of Communication, University of Utah, Salt Lake City, UT 84112, USA
2 Department of Communication, University of Arizona, Tucson, AZ 85721, USA
3 Department of Government & Public Policy, University of Arizona, Tucson, AZ 85721, USA

Incivility in public discussions has received increasing attention from academic and popular commentators in recent years. In an effort to better understand the nature and determinants of such incivility, this study examined a 3-week census of articles and comments posted to a local newspaper's website—totaling more than 300 articles and 6,400 comments. The results of the content analysis show that incivility occurs frequently and is associated with key contextual factors, such as the topic of the article and the sources quoted within the article. We also find that, contrary to popular perceptions, frequent commenters are more civil than are infrequent commenters, and uncivil commenters are no less likely than civil commenters to use evidence in support of their claims.

doi:10.1111/jcom.12104

Civility is a crucial principle of public life, one that speaks to "the fundamental tone and practice of democracy" (Herbst, 2010, p. 3). Indeed, a commitment to civil discourse—the free and respectful exchange of ideas—has been viewed as a democratic ideal from the ancient Athenian forums to the mediated political debates of modern times (Papacharissi, 2004; Sapiro, 1999). This is not to say the ideal is always realized. Public discourse has always had its share of incivility, and the current era is no different in this respect. What is different now, however, is that the 21st century's vast, interactive media environment has created broader opportunities for public debate, and that moments of incivility now spread more rapidly and widely than ever before (Sobieraj & Berry, 2011). In this milieu, incivility has become a central concern of citizens and scholars. For example, a 2010 survey found that more than 8 in 10

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of citizens and scholars. For ex

The ''Nasty Effect:'' Online Incivility and Risk Perceptions of Emerging Technologies*

Ashley A. Anderson

Center for Climate Change Communication, George Mason University
University of Wisconsin-Madison Nanoscale Science and Engineering Center in Templated Synthesis and Assembly at the Nanoscale

Dominique Brossard

Department of Life Sciences Communication, University of Wisconsin-Madison
Center for Nanotechnology in Society at Arizona State University
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Michael A. Xenos

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Department of Communication Arts, University of Wisconsin-Madison

Peter Ladwig

Department of Life Sciences Communication, University of Wisconsin-Madison

Worst

Best

Inappropriate

Harmful
Negative Loop

Irrelevant

Add noise

Redundant

No new information

High Quality

Inspiring
Add information

Worst

Best

Inappropriate

Harmful
Negative Loop

Irrelevant

Add noise

Redundant

No new information

High Quality

Inspiring
Add information
Positive Loop


WRITE A
GREAT COMMENT!

Normative Influences on Thoughtful Online Participation

Abhay Sukumaran[1], Stephanie Vezich[2], Melanie McHugh[1], Clifford Nass[1]

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ABSTRACT
We describe two experiments on whether individual thoughtful effort during online commenting is shaped by situational norms derived from the behavior of social others and the design of the environment, respectively. By measuring the length of participants' comments on a news website, the time taken to write them, and the number of issue-relevant thoughts they contain, we demonstrate that participants conform to high vs. low norms of thoughtfulness manifested through either the apparent behavior of other users or through visual, textual and interactional design features conceptually associated with thoughtfulness. Theoretical and applied insights for designing online participatory environments are discussed.

Author Keywords
Online comments, user-generated content, thoughtfulness, social norms, environmental norms.

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

ACM General Terms
Experimentation.

INTRODUCTION
A widespread form of public discourse is conducted

While such regulation has traditionally been achieved through moderation systems [18], recent research has also focused on subjective perceptions that people form about their online social situations. Online contributions can be motivated, for example, by the individual's perception of their level of participation relative to others [4] or their degree of identification with a social group [33]. In the physical world, interpersonal situations are rife with behavioral influences traceable to social norms, i.e., shared standards of expected behavior inferred from what others are doing [6]. Research also suggests that norms can be derived not only from other people but also from features of the immediate environment that are mentally associated with specific categories of social behavior [1, 15]. We suggest that online comment spaces present fundamentally social yet rather ambiguous situations that are likely to be subject to such normative influence.

In two experimental studies, we explore whether thoughtful participation in online comment spaces can be induced via social norms. The first experiment shows that people tend to conform to standards of thoughtfulness in commenting behavior set by others. The second experiment demonstrates that a similar effect can be achieved by introducing design elements conceptually associated with thoughtfulness in an online comment space. We interpret these results in light of social psychological theories of how environmental and social cues influence perception and

Normative Influences on Thoughtful Online Participation

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ABSTRACT
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INTRODUCTION

Changing Deliberative Norms on News Organizations' Facebook Sites

Natalie Jomini Stroud

Department of Communication Studies, University of Texas, 2504A Whitis Ave. (A1105), Austin, TX 78712-0115

Joshua M. Scacco

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Department of Communication and Journalism, University of Wyoming, Ross Hall, 1000 E. University Ave., Dept. 3904, Laramie, WY 82071

Alexander L. Curry

Department of Communication Studies, University of Texas, 2504A Whitis Ave. (A1105), Austin, TX 78712-0115

Comments posted to news sites do not always live up to the ideals of deliberative theorists. Drawing from theories about deliberation and group norms, this study investigates whether news organizations can affect comment section norms by engaging directly with commenters. We conducted a field study with a local television station in a top-50 Designated Market Area. For 70 political posts made on different days, we randomized whether an unidentified staff member from the station, a recognizable political reporter, or no one engaged with commenters. We assessed if these changes affected whether the comments (n = 2,403) were civil, were relevant, contained genuine questions, and provided evidence. The findings indicate that a news organization can affect the deliberative behavior of commenters.

Keywords: Online Forums, Deliberation, Journalism, Civility, News

Normative Influences on Thoughtful Online Participation

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Keywords:

Moderation, Response Rate, and Message Interactivity: Features of Online Communities and Their Effects on Intent to Participate

Kevin Wise

Missouri School of Journalism
University of Missouri-Columbia

Brian Hamman

Missouri School of Journalism
University of Missouri-Columbia

Kjerstin Thorson

School of Journalism & Mass Communication
University of Wisconsin-Madison

Abstract

Drawbacks?

Image credit: someecards.com

Scalable way?

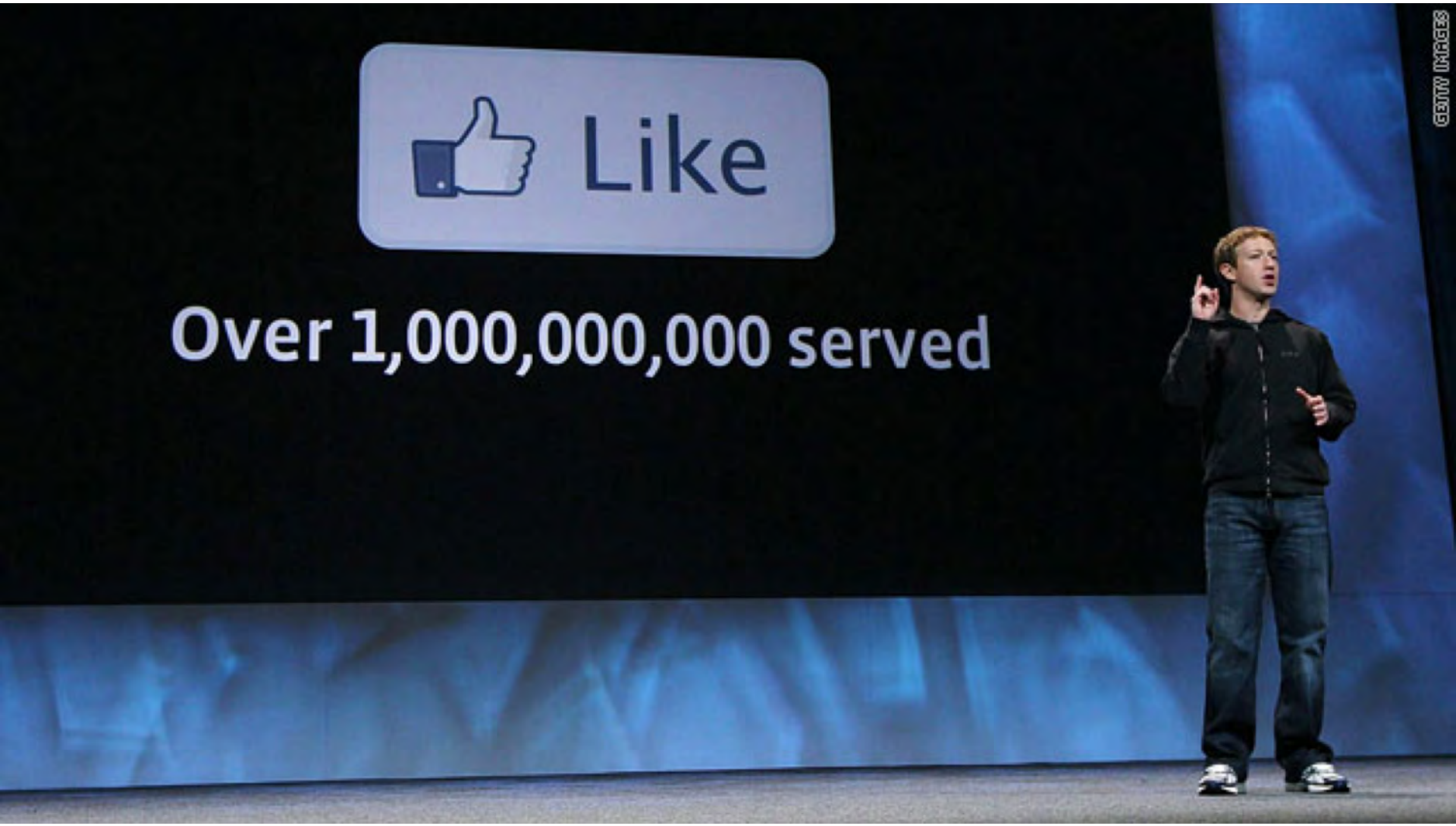


Image Credit: Getty Images


REPORT
ABUSE


FACEBOOK
NEEDS A 'HATE' BUTTON.


The
damage
is already
done.

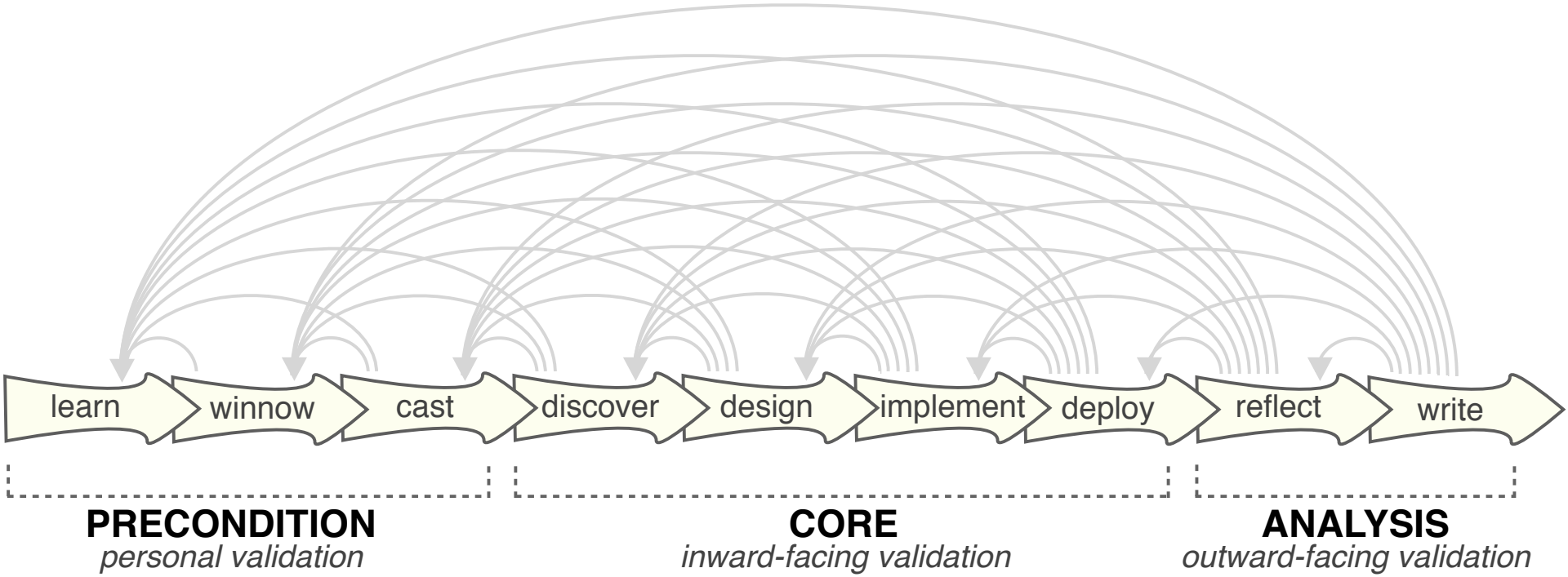
How can we select good comments?

How can we select good comments?

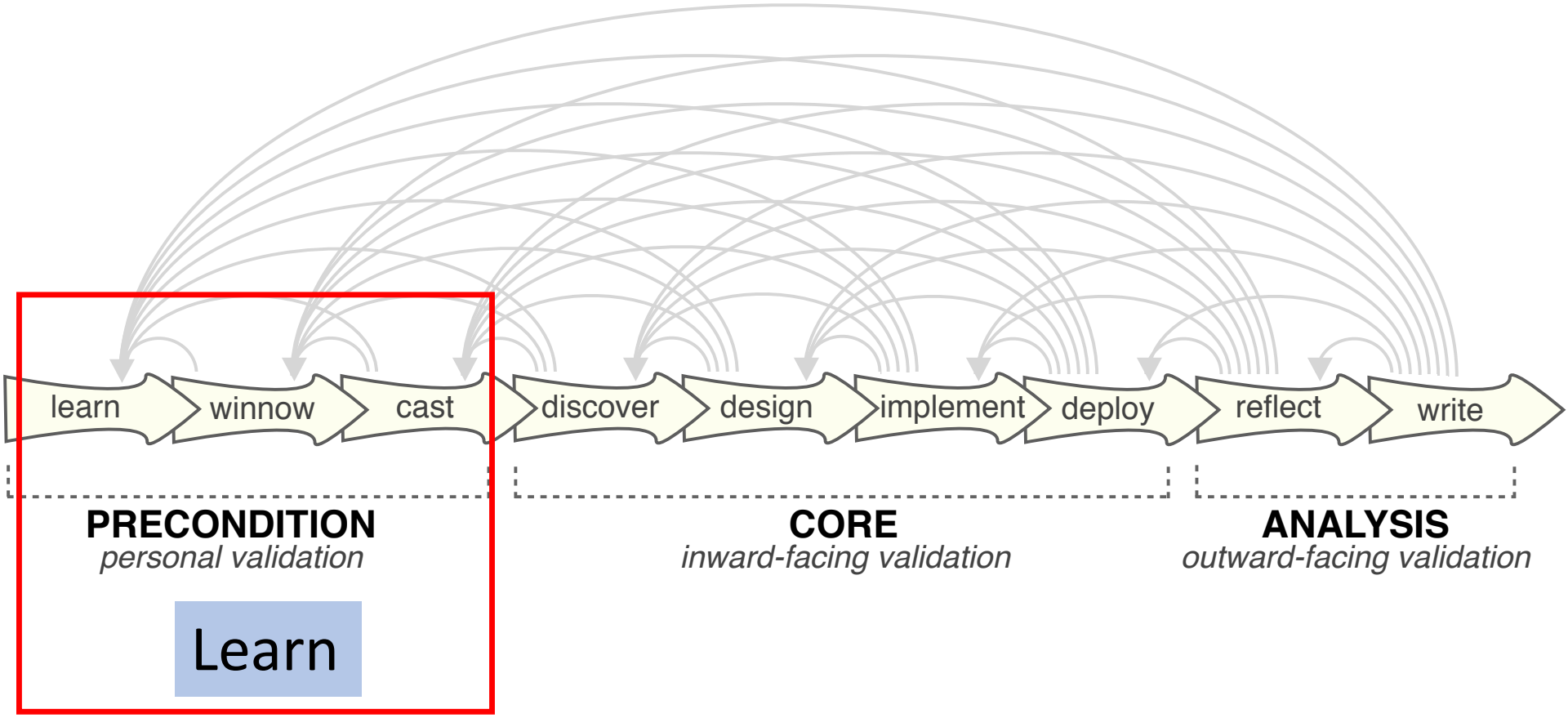
(In a more scalable way)

Wait!
What do you mean by
good comments?

Methodology



Design Study Methodology: Reflections from the Trenches and the Stacks
Michael Sedlmair, Miriah Meyer, and Tamara Munzner
IEEE Trans. Visualization and Computer Graphics (Proc. InfoVis), 18(12): 2431-2440, 2012.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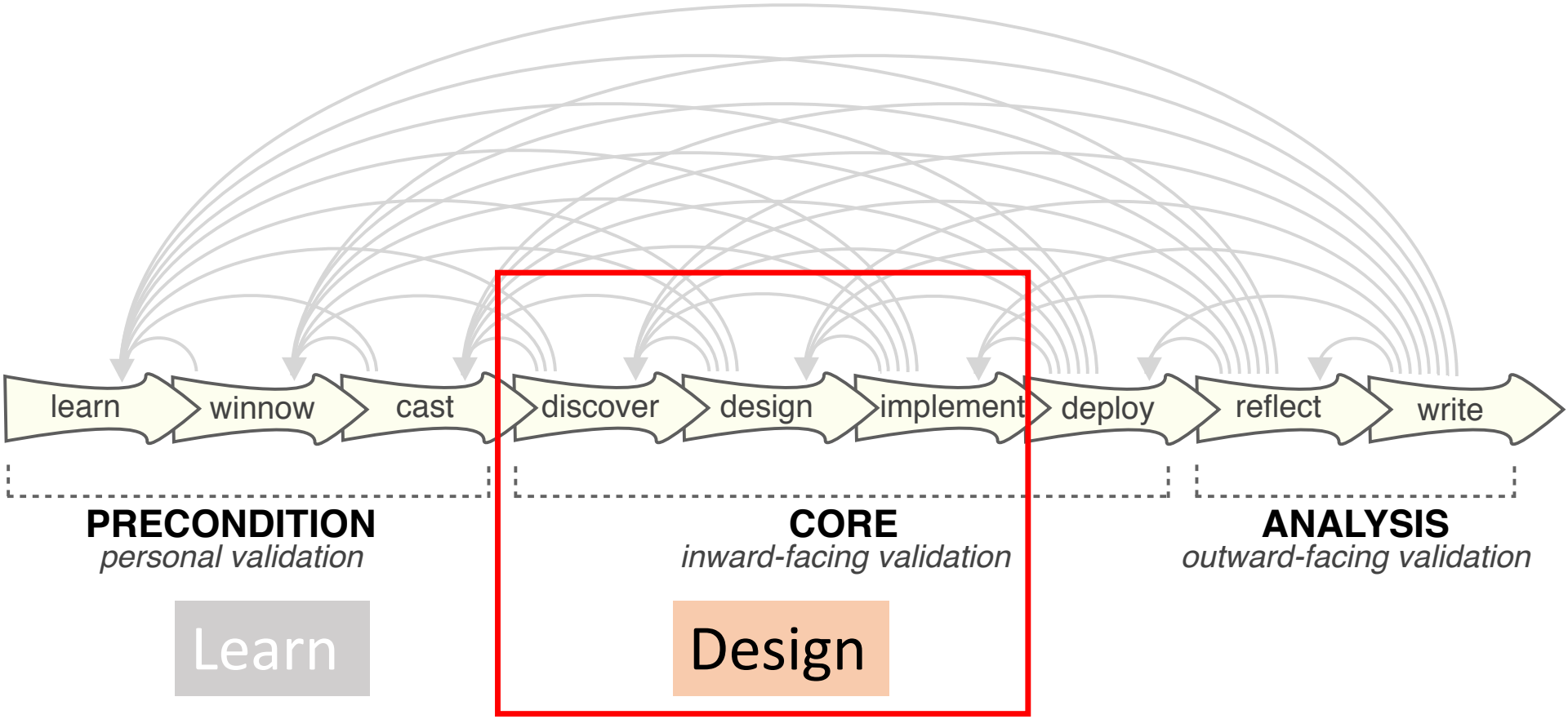
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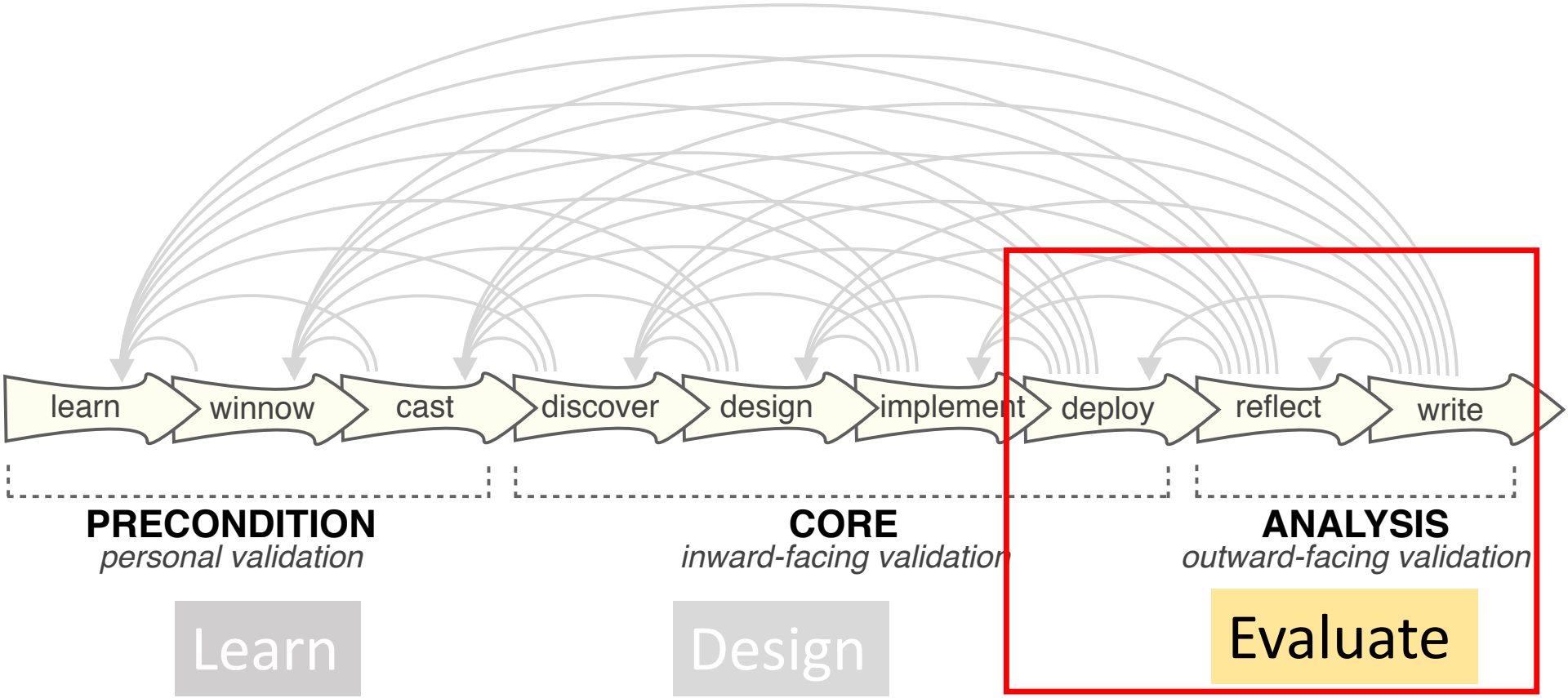
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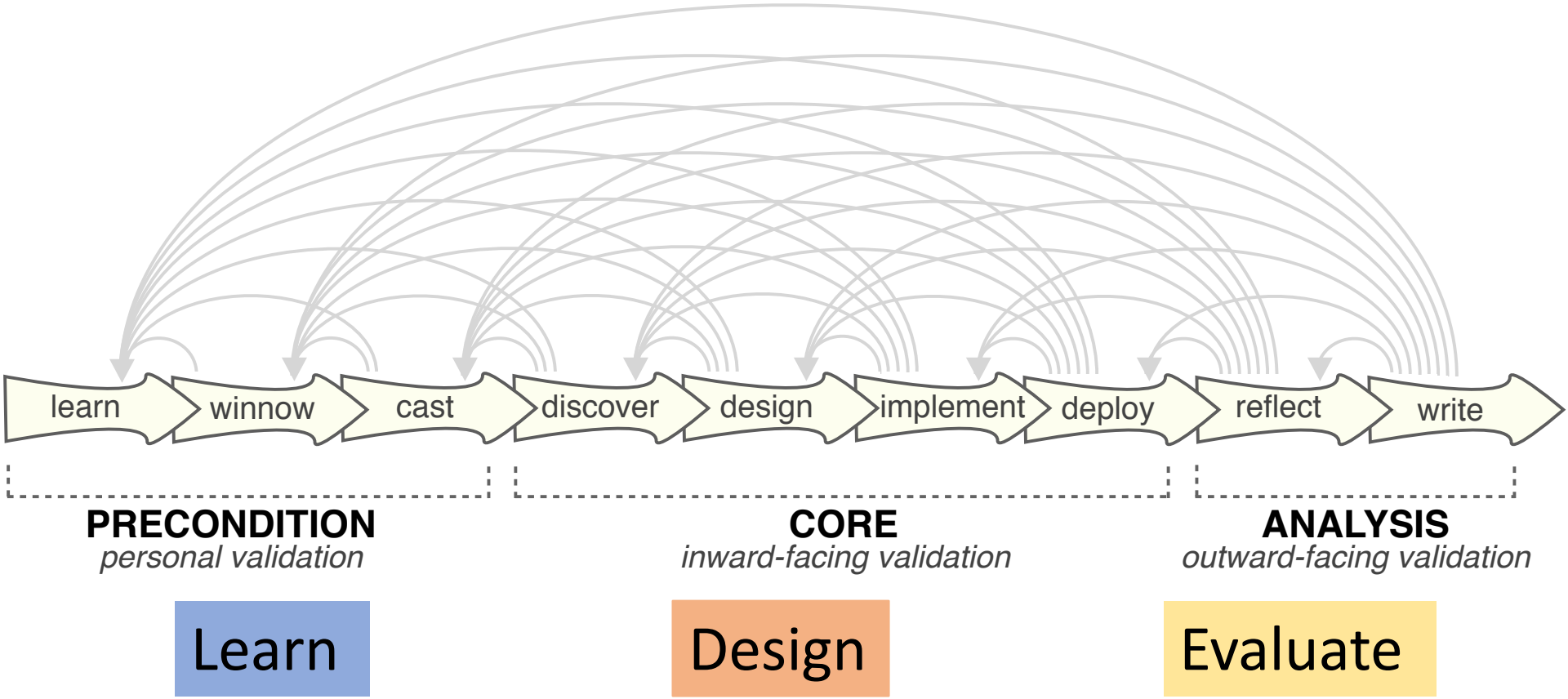
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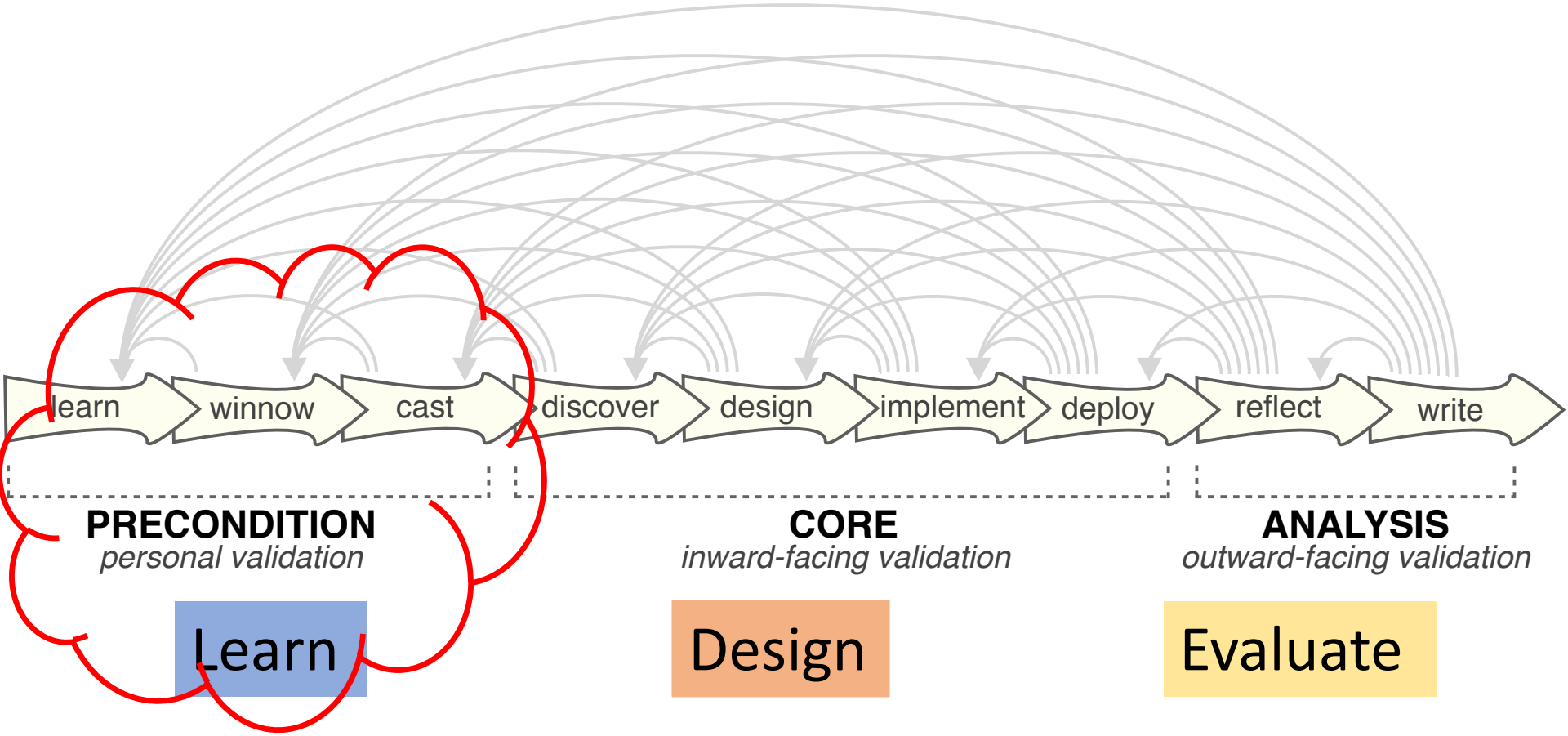
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Design
Evaluate

Interviews

Image Credit: NYTimes 04/17/2014

“We use real people because humans can absorb the variables of conversation and weigh them in more intricate ways.”

“We use real people because humans can absorb the variables of conversation and weigh them in more intricate ways.”

Give moderator power to sort as he/she wants

“We use real people because humans can absorb the variables of conversation and weigh them in more intricate ways.”

Give moderator power to sort as he/she wants

“The second comes from a fear that the thoughts you’re absorbing will seep into your own opinions.”

"We use real people because humans can absorb the variables of conversation and weigh them in more intricate ways."

Give moderator power to sort as he/she wants

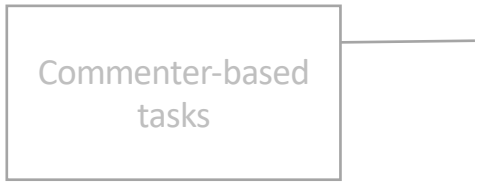
Need for balanced view

"The second comes from a fear that the thoughts you're absorbing will seep into your own opinions."

“Want to go up to the reporter and say here are the 10 from commenters that are from more thoughtful people in comments. “

Multiple use case

“Want to go up to the reporter and say here are the 10 from commenters that are from more thoughtful people in comments. “



“Want to go up to the reporter and say here are the 10 from commenters that are from more thoughtful people in comments. “

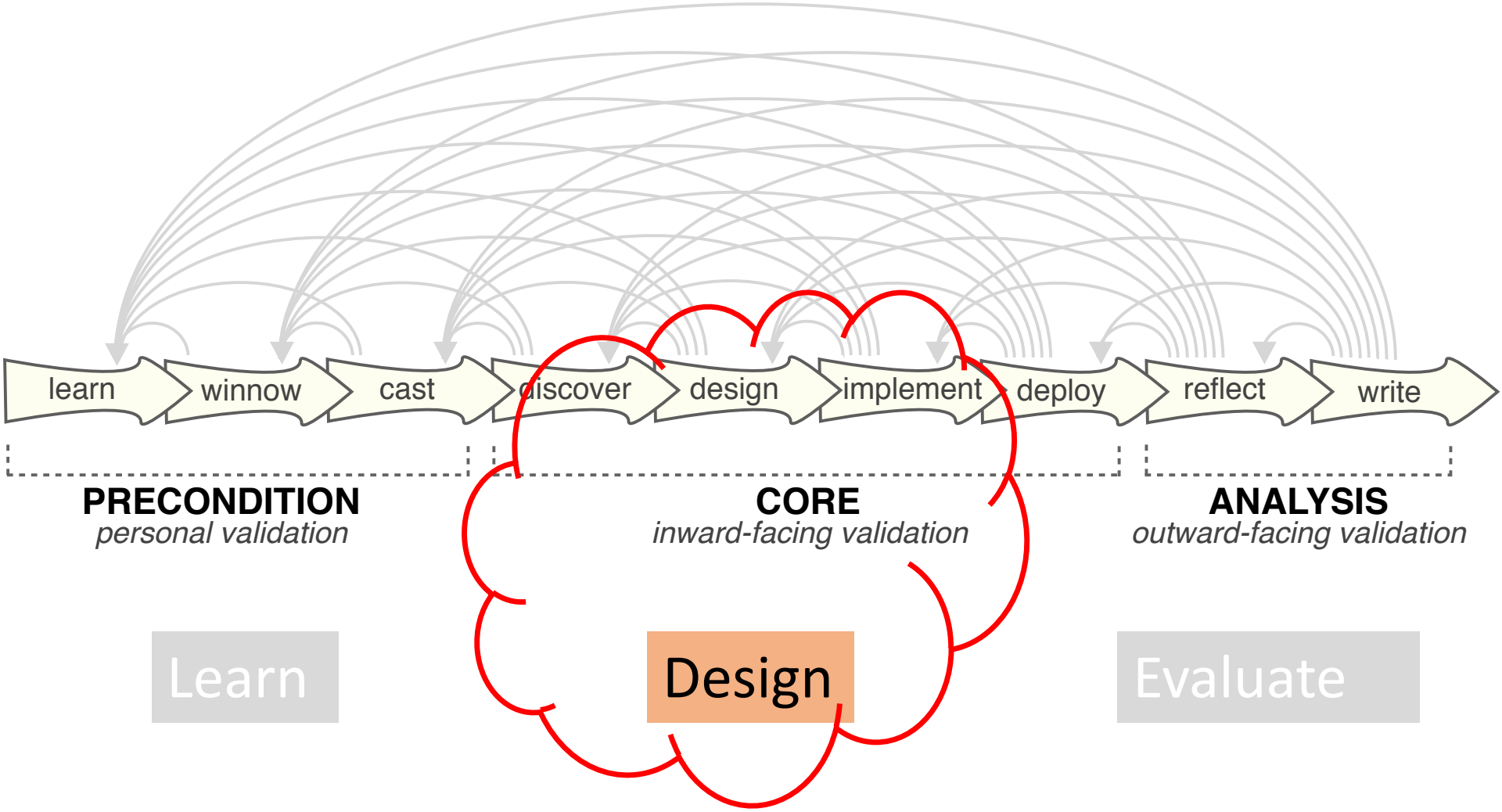
“The comments section often reads like a PhD seminar. I am quite certain that your readers can and would offer up insightful but wry and amusing comments.”

Commenter-based tasks

“Want to go up to the reporter and say here are the 10 from commenters that are from more thoughtful people in comments. “

“The comments section often reads like a PhD seminar. I am quite certain that your readers can and would offer up insightful but wry and amusing comments.”

Unexpected comments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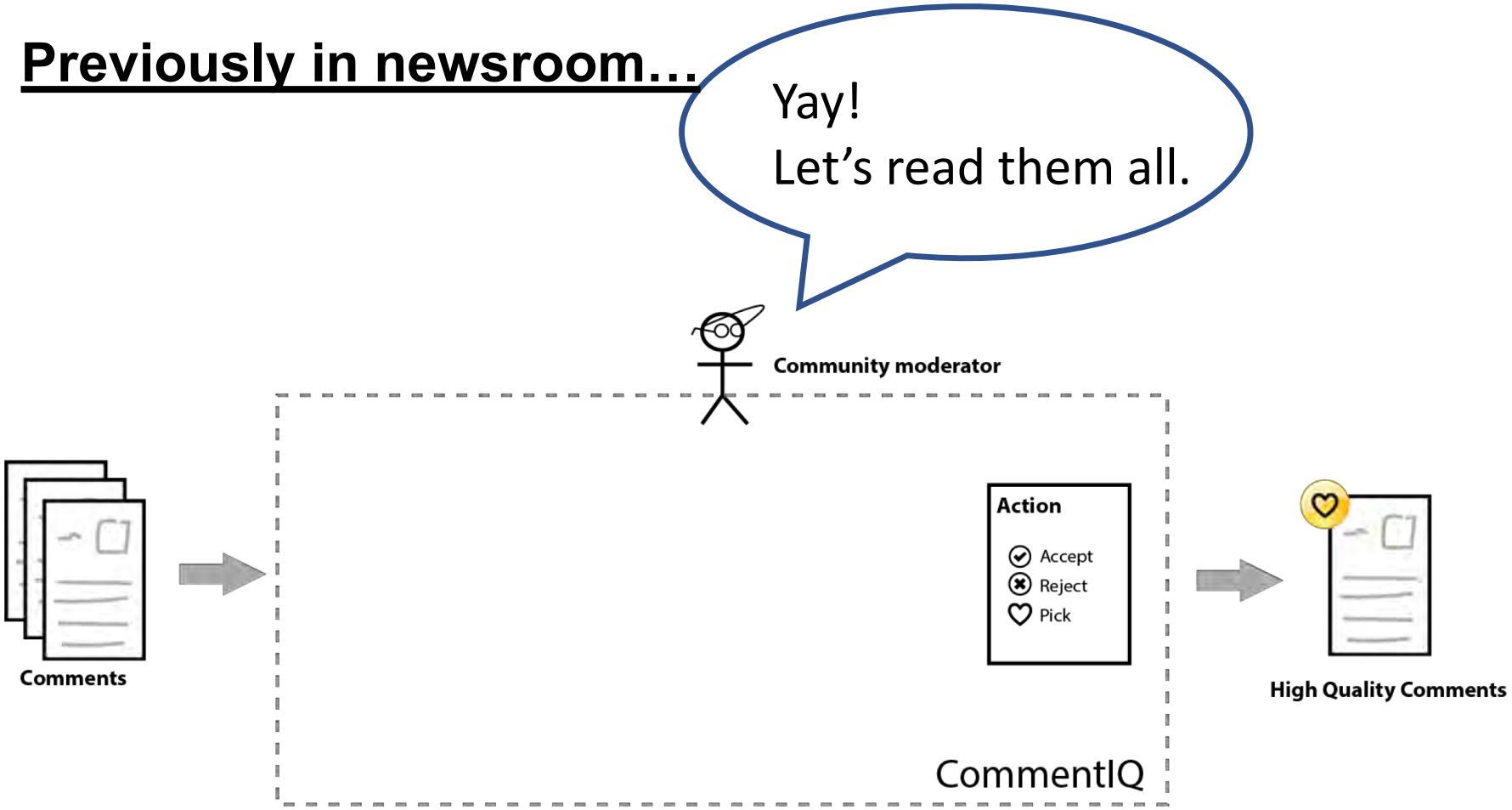
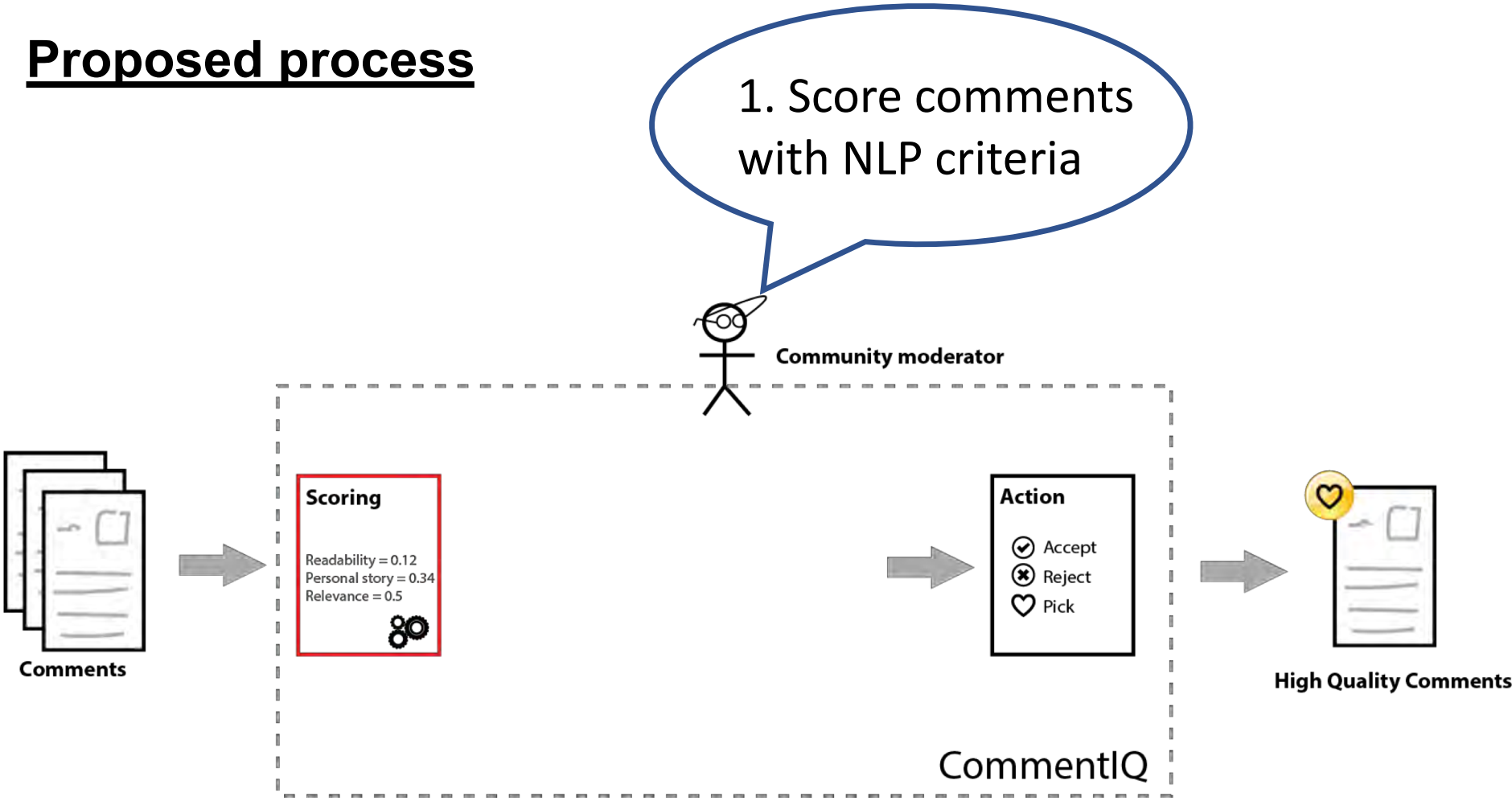
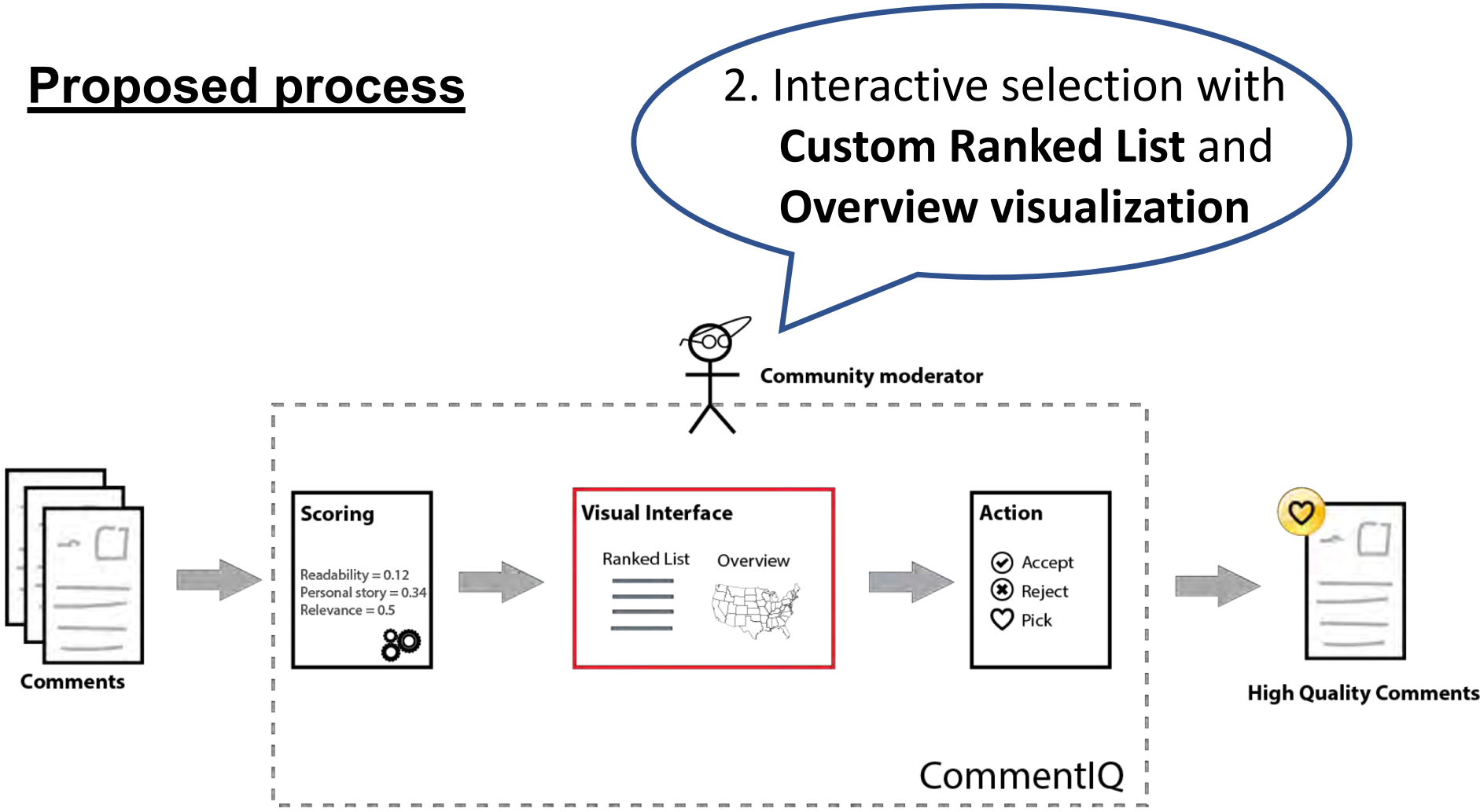
Previously in newsroom…



Proposed process



Proposed process



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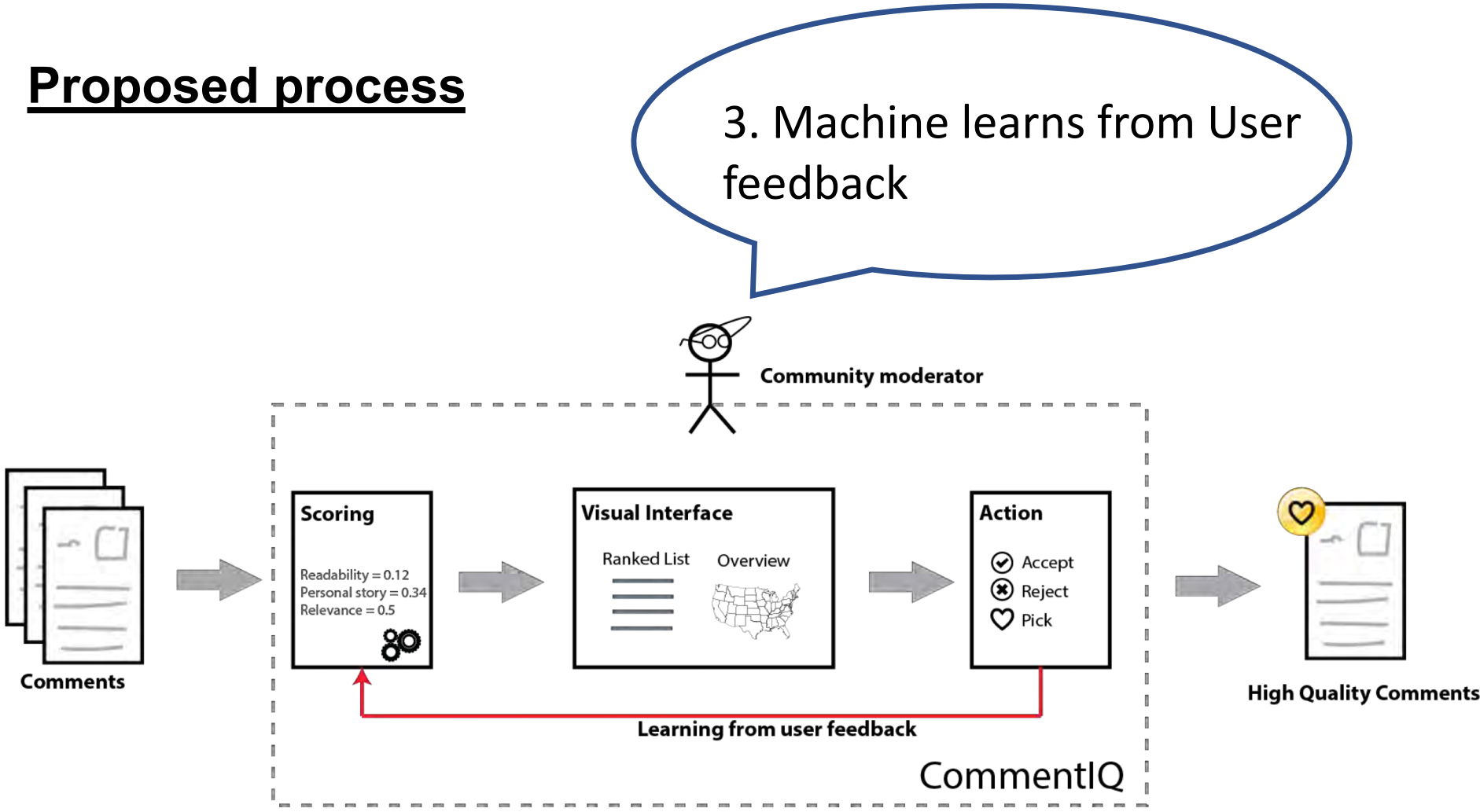
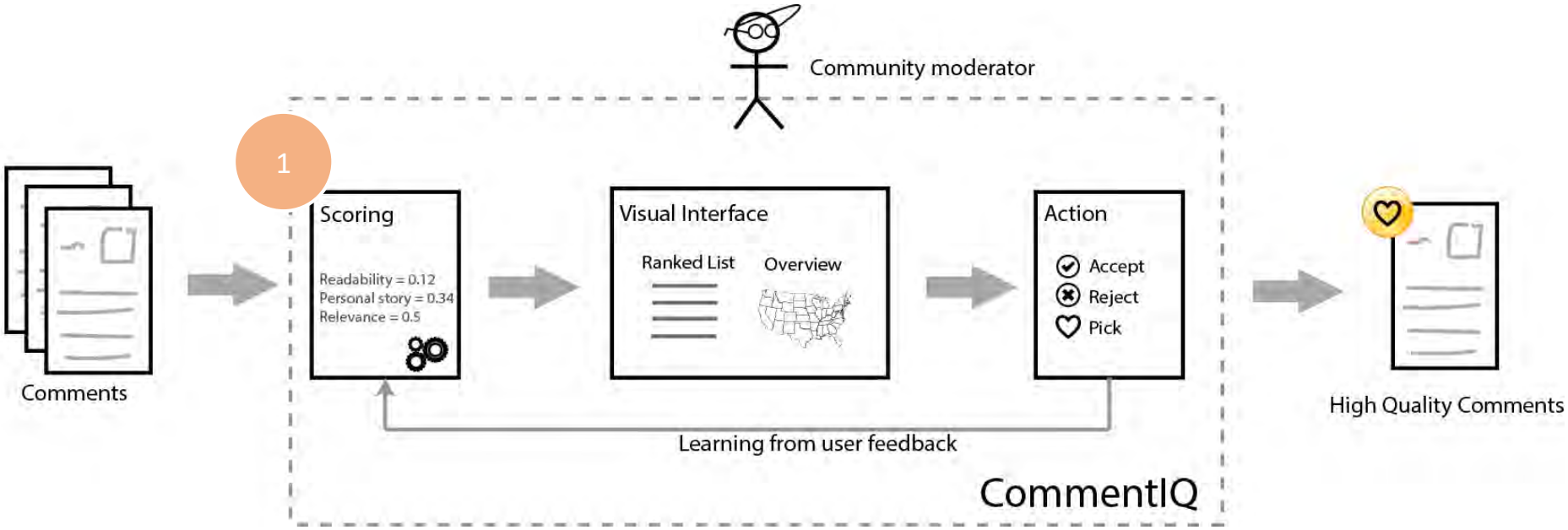



Community moderator
1
Comments
Scoring
Readability = 0.12
Personal story = 0.34
Relevance = 0.5
Visual Interface
Ranked List
Overview
Action
Accept
Reject
Pick
High Quality Comments
Learning from user feedback
CommentIQ

Scoring criterias

- ✓Article Relevance
- ✓Conversational Relevance
- ✓Personal Experience
- ✓Length of comments
- ✓Readability of the comment
- ✓Recommendation Score

Picking the NYT Picks: Editorial Criteria and Automation in the Curation of Online News Comments

Nicholas Diakopoulos

Journalists have a propensity to select online comments for publication according to editorial conceptions of quality content. This work considers various criteria for identifying quality user contributions for publication, evaluates how these criteria manifest in New York Times "Picks" comments, and operationalizes three such criteria computationally. Results indicate that many of the criteria enumerated from the literature do manifest in NYT "Picks" comments more so than non-selected comments, that most criteria are adequately rated by untrained non-professionals, and that relatively simple algorithms can be used to automatically assess some of these criteria. Implications for future online commenting experiences are discussed.

Introduction

The role of online comments on news sites is becoming an increasingly contentious subject as publishers are beginning to challenge the conventional wisdom of providing a space for commentary in response to articles, playing out the tension between the open and participatory nature of user-generated content (UGC) and the norms and goals of professional journalists seeking to control content (Lewis, 2012). Concerns over UGC, and specifically of online comments, by professionals often reflect the potentially damaging effects of low-quality content, such as defamation, brand damage, abusive comments, or injured relationships to community sources (Canter, 2013; Diakopoulos & Naaman, 2011) and many journalists continue to maintain an aloofness and disinterest in engaging with online discussion spaces (Meyer & Carey, 2013). Recently several prominent sites like Re/Code, Popular Science, and Reuters have altogether moved


✓User Article Relevance
✓User Conversational Relevance
✓User Personal Experience
✓User Length of comments
✓User Readability of the comment
✓User Recommendation Score

Criteria Only

The Times' Community API

2815 articles

331782 comments

12542 Pick

Criteria Only

The Times' Community API

2815 articles

331782 comments

12542 Pick

Train		Test	
Pick comments	Nonpick comments	P	N

Results

		Ground Truth: Pick	Ground Truth: No Pick
Prediction	Pick	1712 (True Positive)	926 (False Positive)
	No Pick	797 (False Negative)	1583 (True Negative)

Precision: 0.65
Recall: 0.68
F2 score: 0.68

Results

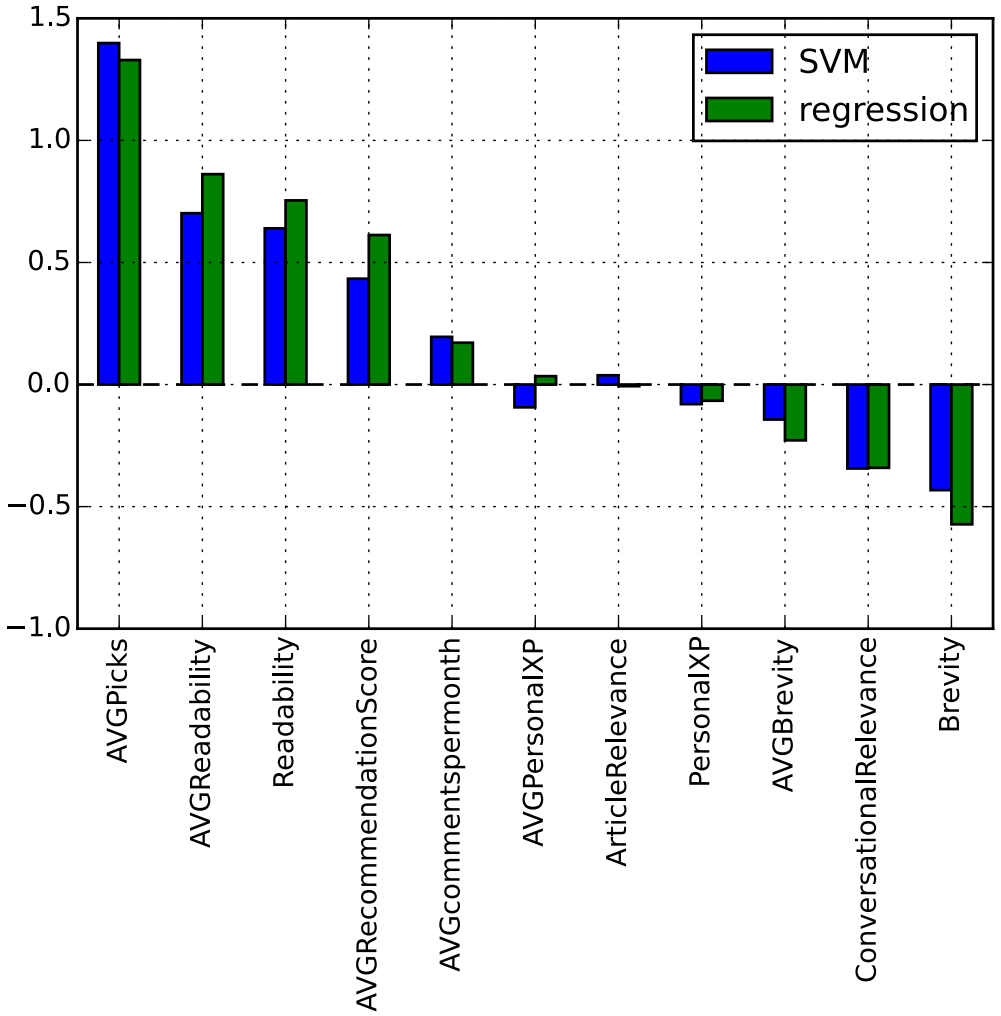
Prediction \ Ground Truth	Pick	No Pick
Pick	1712 (True Positive)	926 (False Positive)
No Pick	797 (False Negative)	1583 (True Negative)

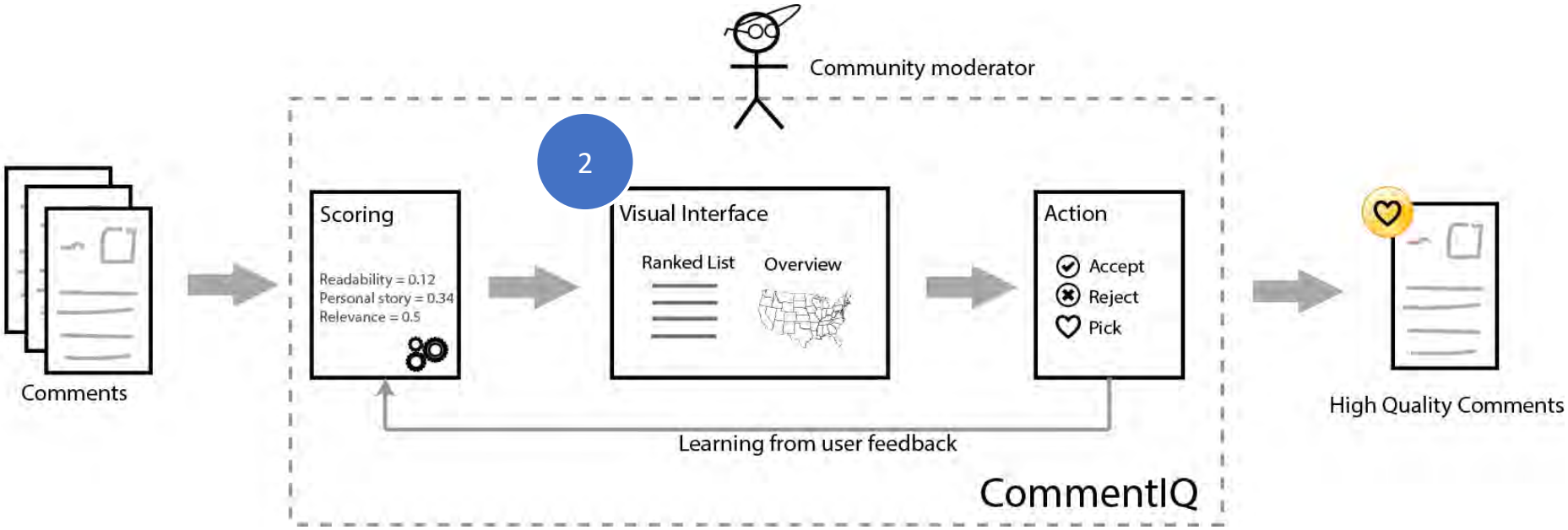
Precision: 0

Recall: 0

F2 s

User history and Readability are best predictor for quality.

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Visual Interface
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CommentIQ

Custom Ranked List

F.B.I. Director Speaks About Race

WASHINGTON — The F.B.I. director, James B. Comey, delivered an unusually candid speech on Thursday about the difficult relationship between the police and African-Americans, saying that officers who work in neighborhoods where blacks commit crimes at a high rate develop a cynicism that shades their attitudes

... (more)

Select your overview visualization

CommentPlot | Map | Temporal

New Accepted Rejected Picked

Presets for Ranking: Edit Add +

✓ Default
Personal Story
Unexpected comment
Written by best user

for this ranking.

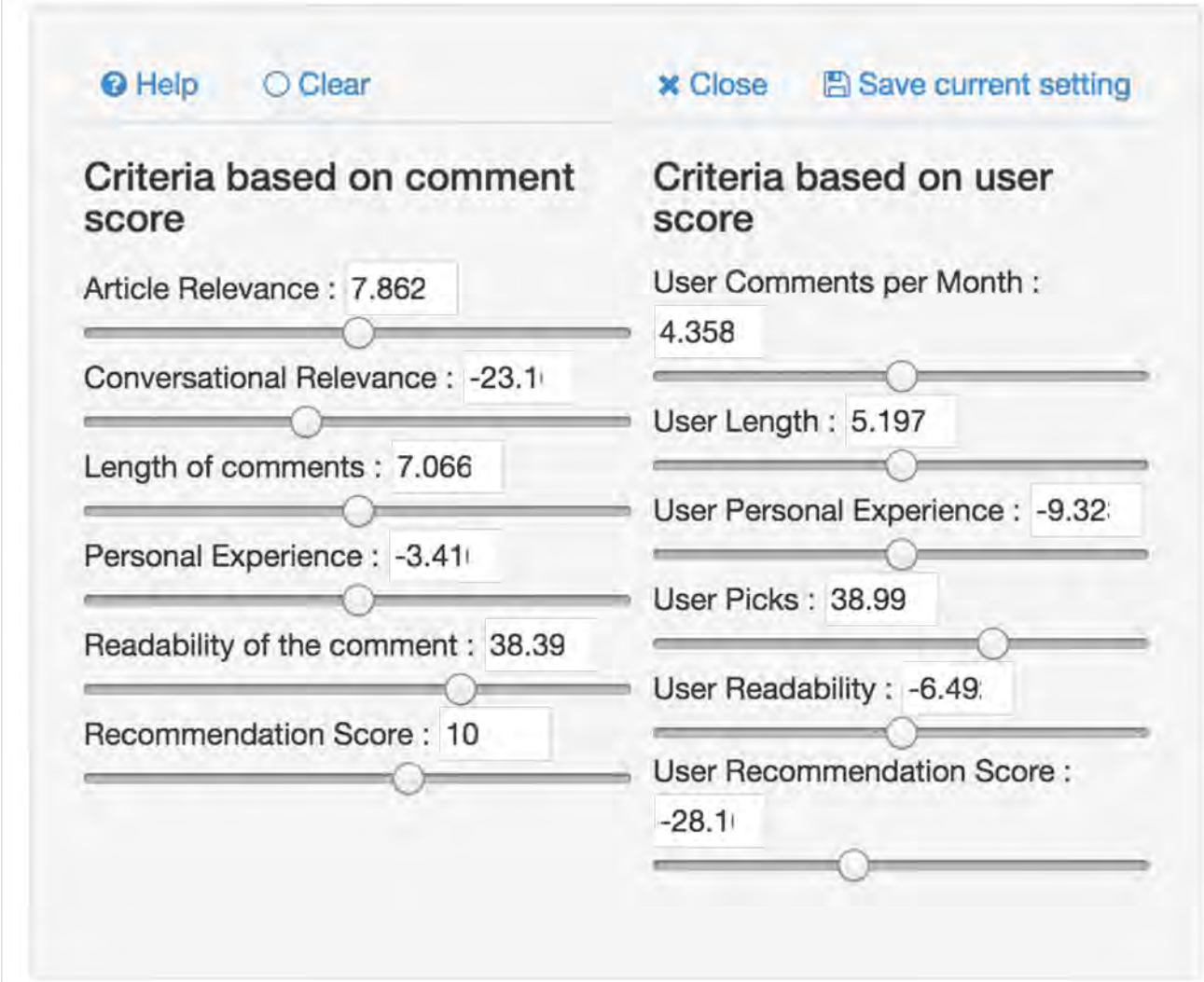
Search for...

New (633) | Accepted (0) | Rejected (0) | Picked (1) | All

NJB Seattle , Feb 12, 2015 12:41:39 PM

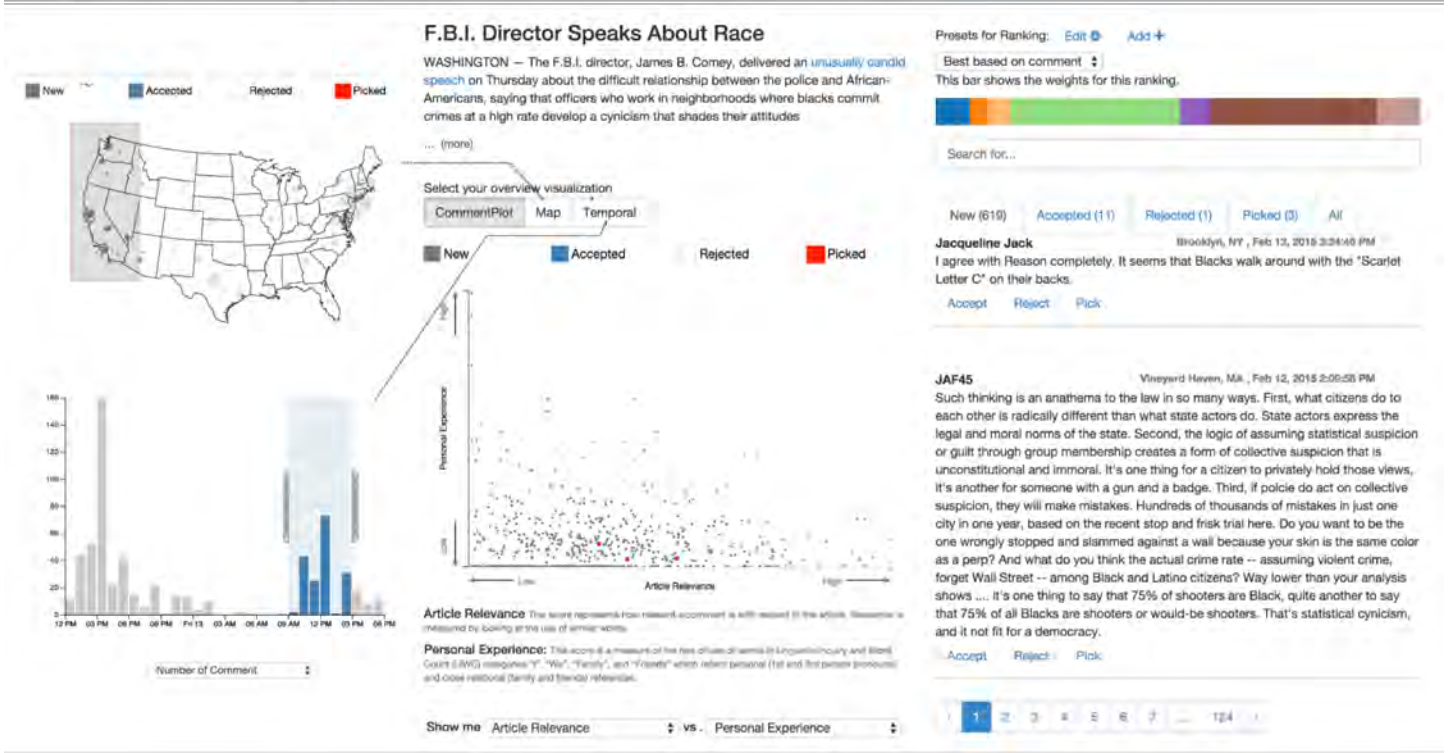
Kudos to Director Comey. It's a breath of fresh air to hear honest and unvarnished comments which are so obviously true. The problem is that in the highly charged atmosphere surrounding the issue, we find it difficult to have an honest conversation as one side jumps on anything the other side says. The first thing we need to do is recognize that this isn't about "sides" but a very real American societal problem that we need to talk about openly and honestly. Comey's comments are a valuable first step.

Accept Reject Pick

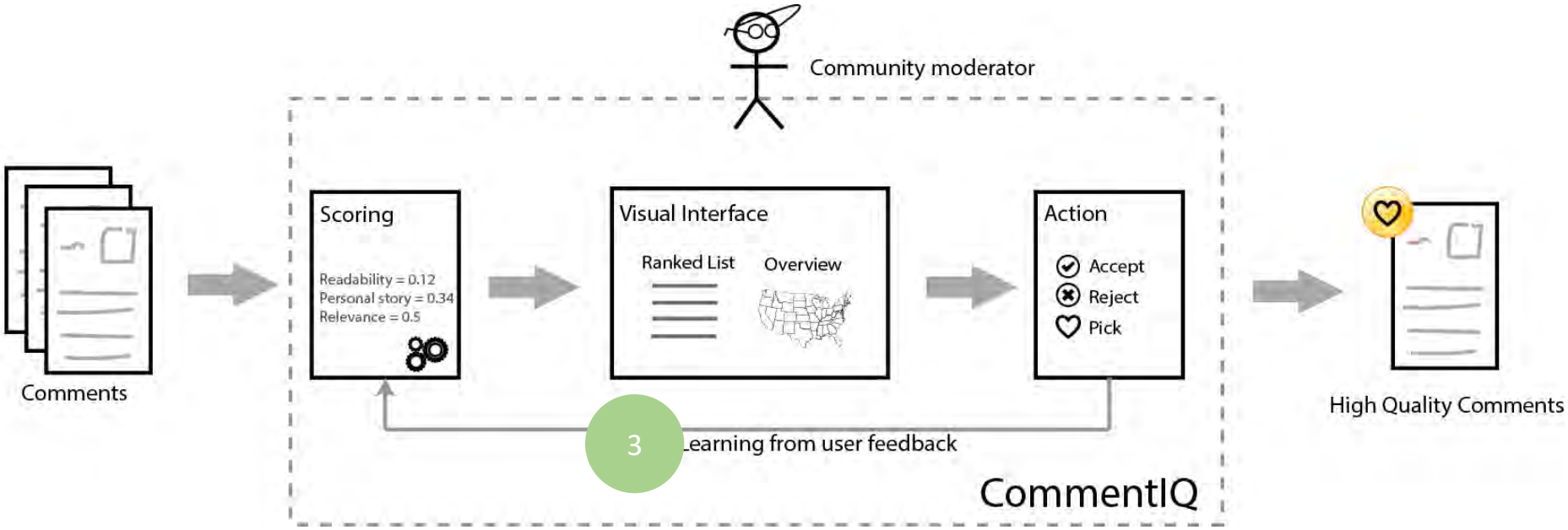

Help
Clear
Close
Save current setting
Criteria based on comment score
Article Relevance : 7.862
Conversational Relevance : -23.1
Length of comments : 7.066
Personal Experience : -3.41
Readability of the comment : 38.39
Recommendation Score : 10
Criteria based on user score
User Comments per Month : 4.358
User Length : 5.197
User Personal Experience : -9.32
User Picks : 38.99
User Readability : -6.49
User Recommendation Score : -28.1

Overview Visualization

CommentIQ



http://moderator.comment-iq.com/#/demo


Community moderator
Comments
Scoring
Readability = 0.12
Personal story = 0.34
Relevance = 0.5
Visual Interface
Ranked List
Overview
Action
Accept
Reject
Pick
High Quality Comments
3
Learning from user feedback
CommentIQ

ommentIQ

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me / Articles / F.B.I. Director Speaks About R

F.B.I. Director Speaks Abou

Edit Add +

VASHINGTON — The F.B.I. director, James B. C
nusually candid speech on Thursday about the
etween the police and African-Americans, sayin
ork in neighborhoods where blacks commit crir
levelop a cynicism that shades their attitudes

.. (more)

eights for this ranking.

Please select all that apply to this comment.

- [ ] well-written
- [ ] informative
- [ ] personal experience
- [ ] critical
- [ ] humorous
- [ ] Type other reason...

OK

Select your overview visualization

CommentPlot | Map | Temporal

New Accepted Rejected Picked

New (633) | Accepted (0) | Rejected (0) | Picked (1) | All

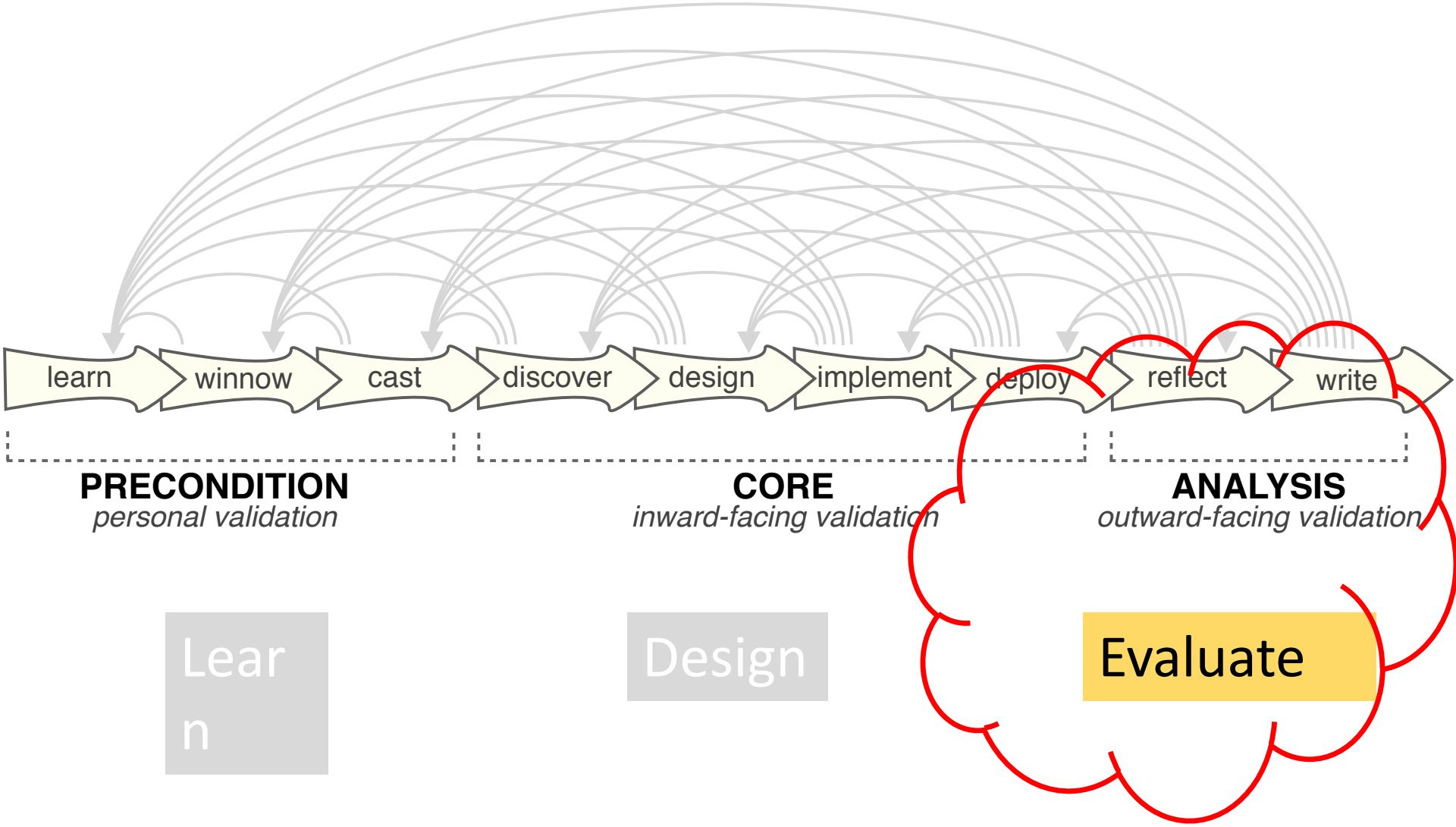
NJB Seattle , Feb 12, 2015 12:41:39 PM

Kudos to Director Comey. It's a breath of fresh air to hear honest and unvarnished comments which are so obviously true. The problem is that in the highly charged atmosphere surrounding the issue, we find it difficult to have an honest conversation as one side jumps on anything the other side says. The first thing we need to do is recognize that this isn't about "sides" but a very real American societal problem that we need to talk about openly and honestly. Comey's comments are a valuable first step.

Accept Reject Pick

Dawn Offtime New York , Feb 12, 2015 12:42:13 PM

Any rational person will understand Mr. Comey's sane assessment of the dilemma facing both the police and blacks: 96% of all shooting


learn
winnow
cast
discover
design
implement
deploy
reflect
write
PRECONDITION
personal validation
CORE
inward-facing validation
ANALYSIS
outward-facing validation
Lear
n
Design
Evaluate


The
New York
Times


The
Washington
Post


THE BALTIMORE SUN


THE WALL STREET JOURNAL.
WSJ

ID	Organization	Field-experience (in years)	Workflow
P1	Washington Post	10	Post-moderation
P2		1	
P3		4	
P4	New York Times	4	Pre-moderation
P5		7	
P6	Wall Street Journal	4	Post-moderation
P7	Baltimore Sun	7	Post-moderation

ID	Organization	Field-experience (in years)	Workflow
P1	Washington Post	10	Post-moderation
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P3		4	
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P5		7	
P6	Wall Street Journal	4	Post-moderation
P7	Baltimore Sun	7	Post-moderation

1 hour structured interview with test drive

Findings

“…shifting moderating to a reporting research job.”

Paraphrased from one moderator

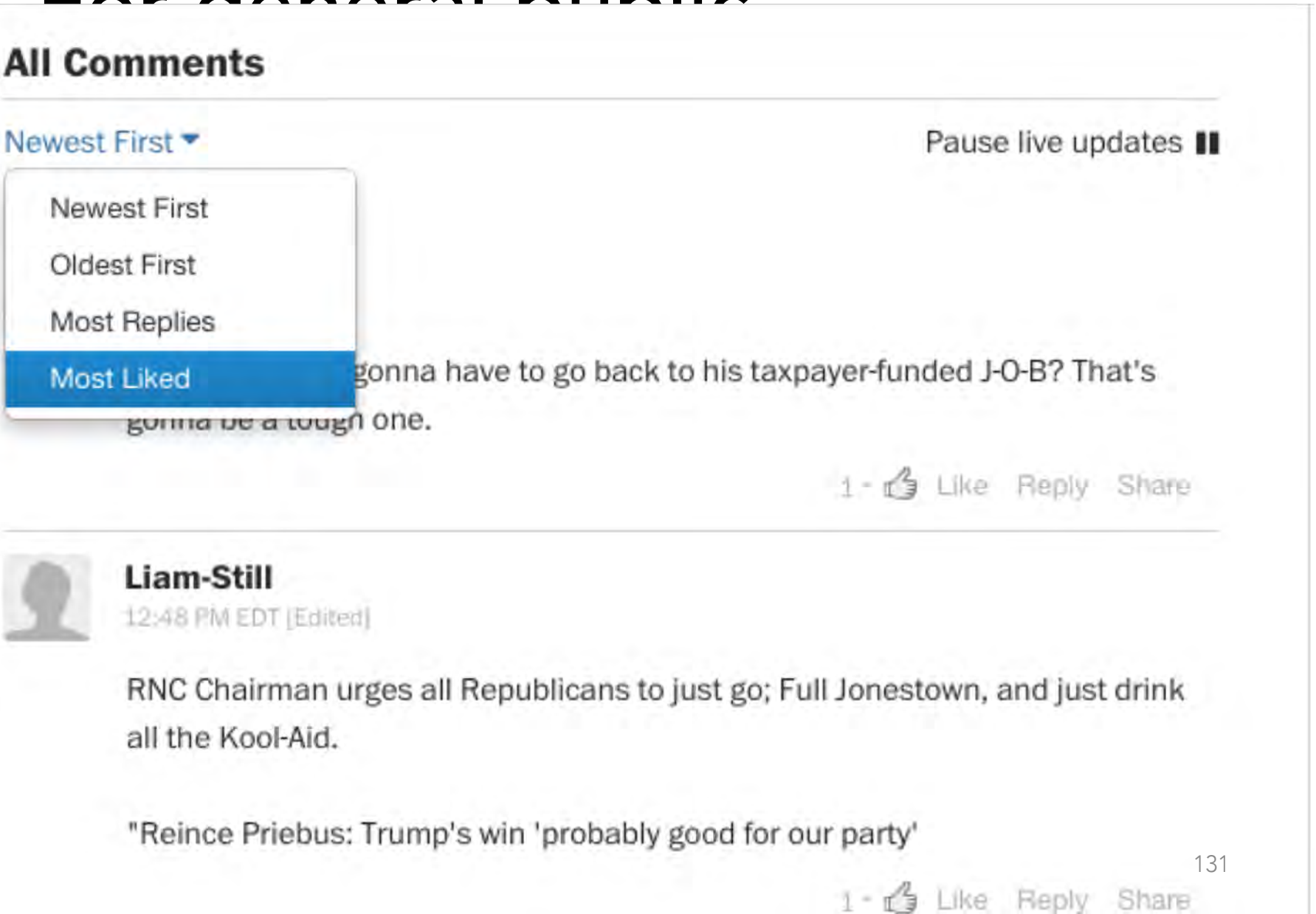
- Flexibility is great

- Flexibility is great

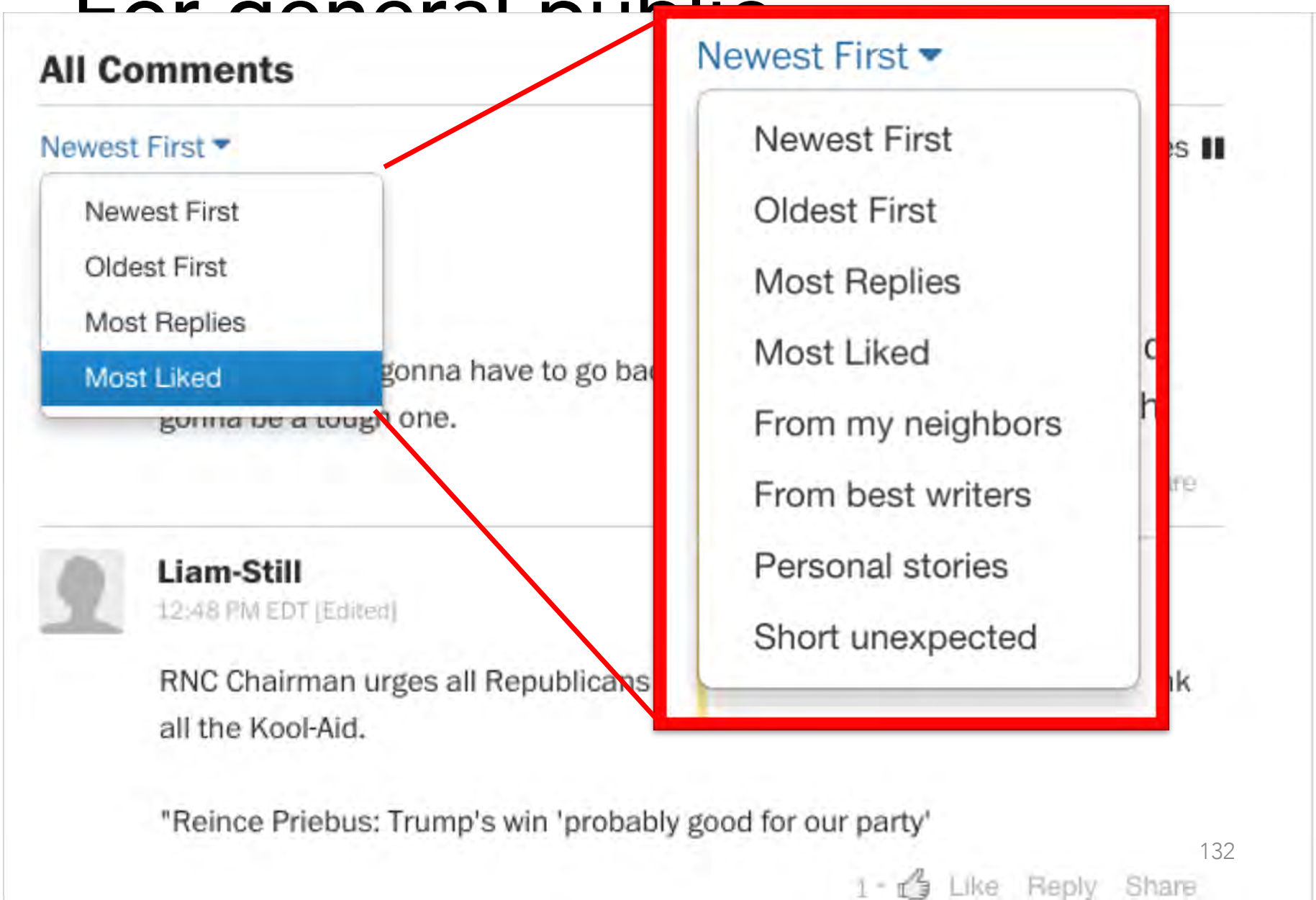
- Comments are made by people!

- Flexibility is great
- Comments are made by people!
- use-cases for readers

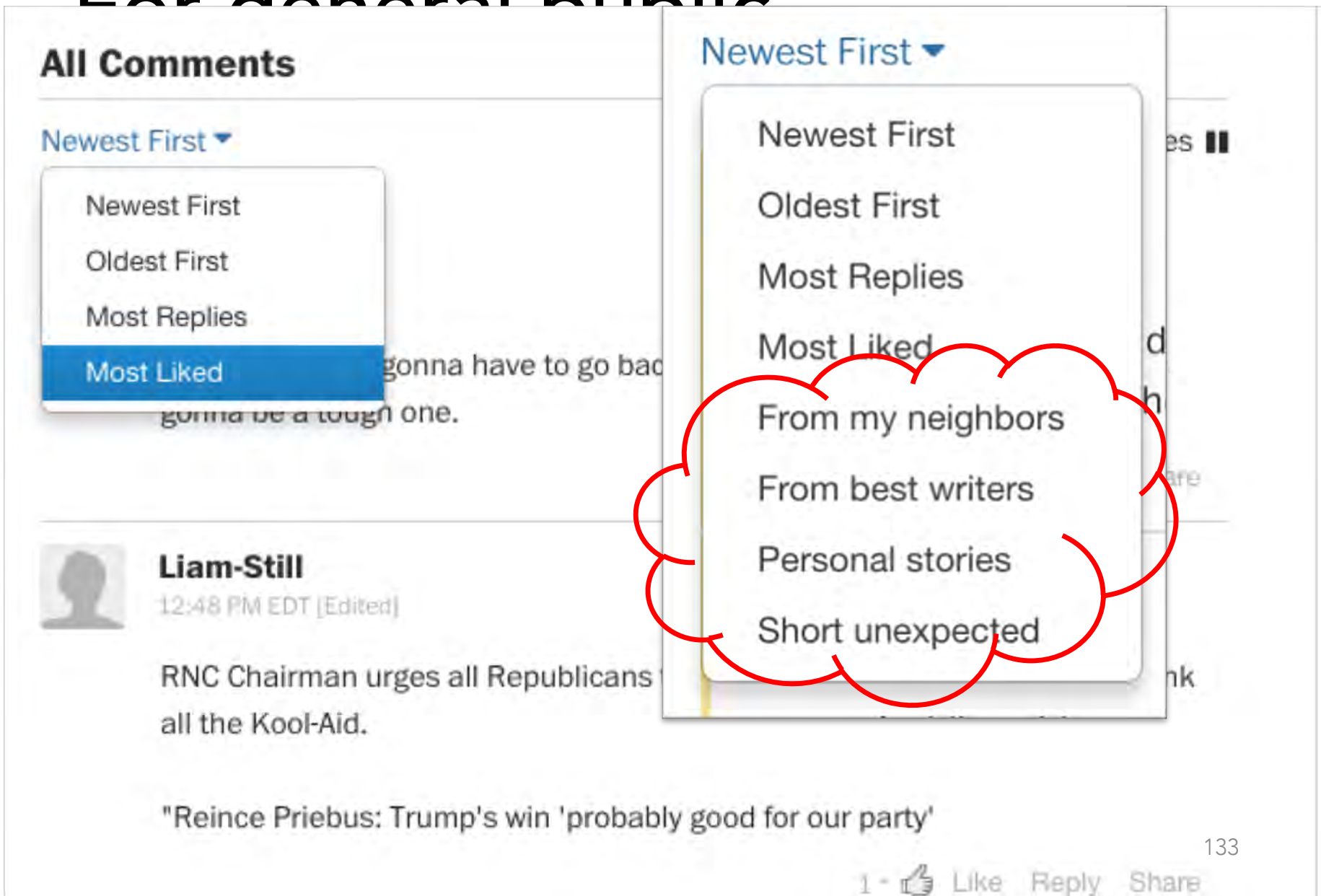
For general public



For general public



For general public



Conclusion

What are good comments?

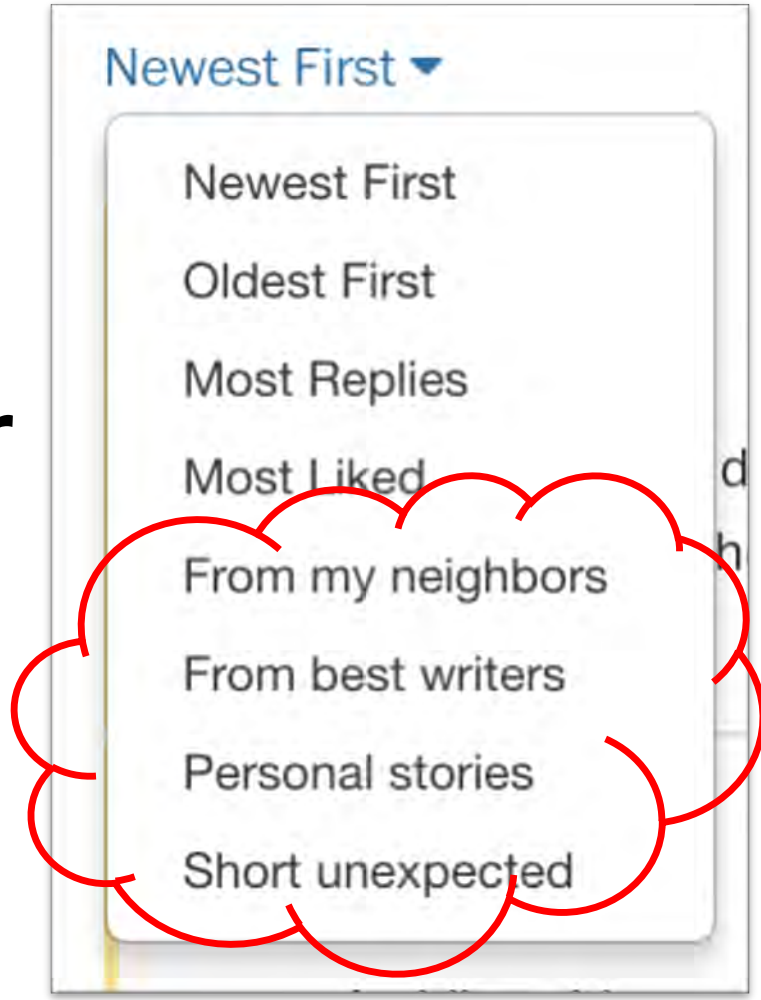
How can we select good comments?

What is a high-quality comment depends on the journalistic context.

What is a high-quality comment depends on the journalistic context.

Visual analytics approach can help moderators find high-quality comments.

Time to upgrade our comments section

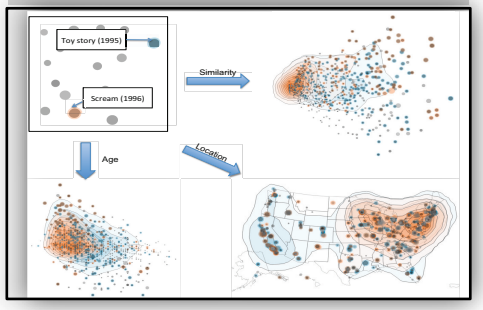



Knight Foundation
Informed & Engaged Communities


CommentIQ
How can we share insights hidden inside this data with readers?
Simranjit Sachar
ssachar@umd.edu
Nicholas Diakopoulos
@ndiakopoulos
Niklas Elmqvist
@NElmqvist
Deokgun Park
@intuin

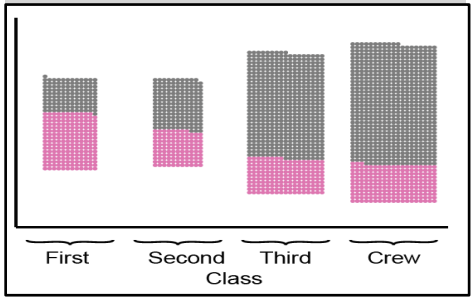
TEAM WORK

(a)Parallelspaces[HICSS'16]



(b) TopicLens[VAST'16]

(c) Gatherplot



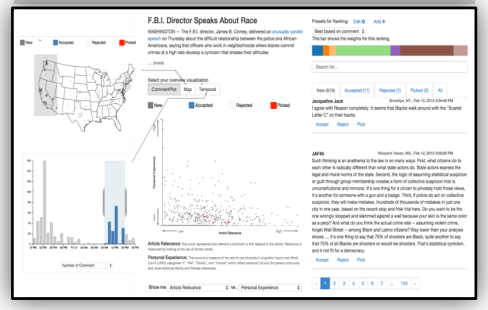
Sensing mechanism

Automated System

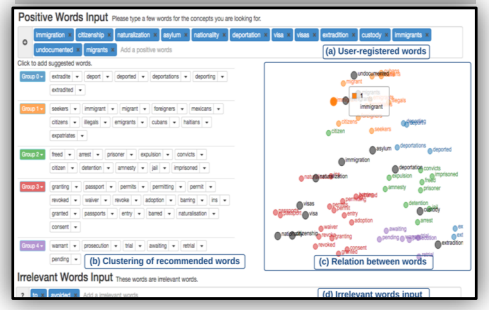
Human

Steering mechanism

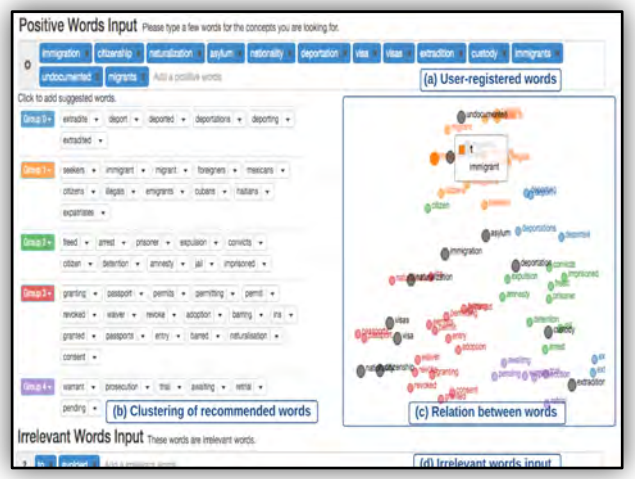
(d) CommentIQ[CHI'16]



(e) ConceptVector[VAST'17]

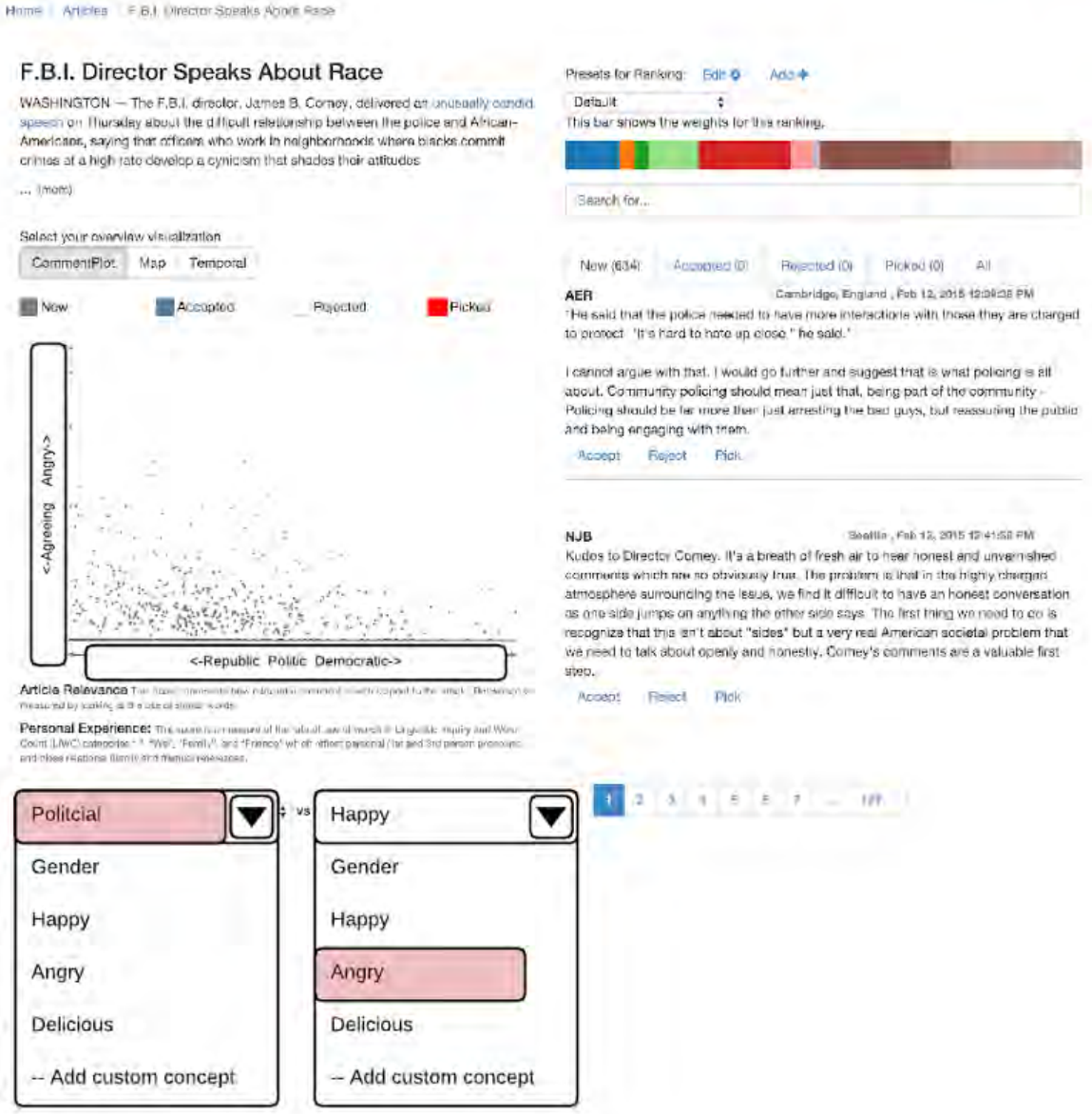


ConceptVector



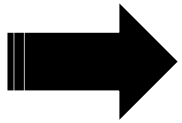
Park, Deokgun, et al. "ConceptVector: text visual analytics via interactive lexicon building using word embedding." *IEEE transactions on visualization and computer graphics* 24.1 (2018): 361-370.

- ✓Article Relevance
- ✓Conversational Relevance
- ✓Personal Experience
- ✓Length of comments
- ✓Readability of the comment
- ✓Recommendation Score

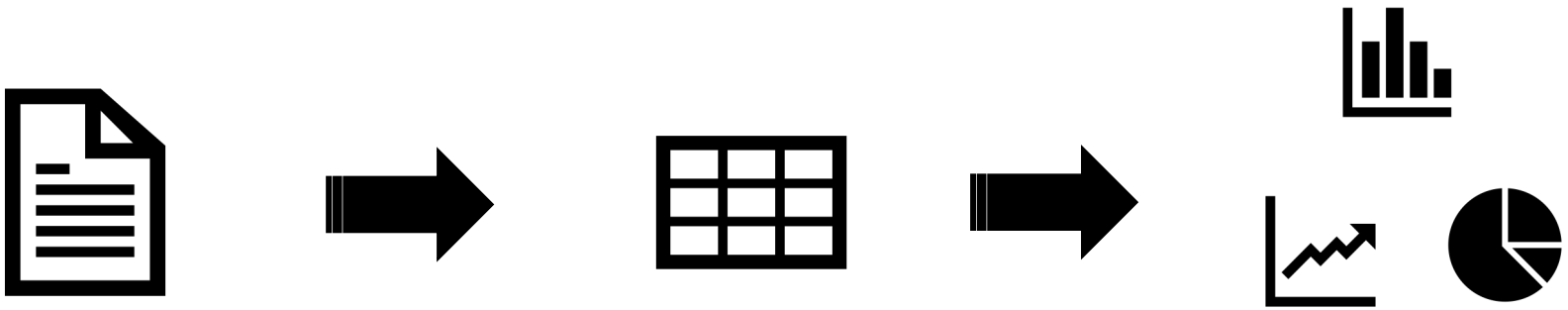

Home | Articles | F.B.I. Director Speaks About Race
F.B.I. Director Speaks About Race
WASHINGTON — The F.B.I. director, James B. Comey, delivered an unusually candid speech on Thursday about the difficult relationship between the police and African-Americans, saying that officers who work in neighborhoods where blacks commit crimes at a high rate develop a cynicism that shades their attitudes
... (more)
Select your overview visualization
CommentPlot
Map
Temporal
New
Accepted
Rejected
Picked
<-Agreeing Angry->
<-Republic Politic Democratic->
Article Relevance
Personal Experience:
Presets for Ranking:
Edit
Add
Default
This bar shows the weights for this ranking.
Search for...
New (634)
Accepted (0)
Rejected (0)
Picked (0)
All
AER
Cambridge, England , Feb 12, 2015 12:08:08 PM
"He said that the police needed to have more interactions with those they are charged to protect. "It's hard to hate up close," he said."
I cannot argue with that. I would go further and suggest that is what policing is all about. Community policing should mean just that, being part of the community - Policing should be far more than just arresting the bad guys, but reassuring the public and being engaging with them.
Accept
Reject
Pick
NJB
Seattle , Feb 12, 2015 12:41:58 PM
Kudos to Director Comey. It's a breath of fresh air to hear honest and unvarnished comments which are so obviously true. The problem is that in the highly charged atmosphere surrounding the issue, we find it difficult to have an honest conversation as one side jumps on anything the other side says. The first thing we need to do is recognize that this isn't about "sides" but a very real American societal problem that we need to talk about openly and honestly. Comey's comments are a valuable first step.
Accept
Reject
Pick
1
2
3
4
5
6
7
...
177
Politcial
vs
Happy
Gender
Happy
Angry
Delicious
-- Add custom concept
Gender
Happy
Angry
Delicious
-- Add custom concept

TEXT

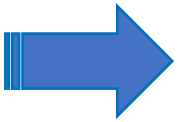
TEXT



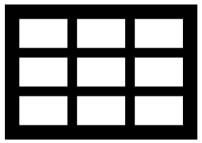
Visualization


TEXT
NUMBERS
Visualization

TEXT

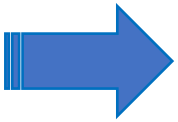


Lexicon-based Text Mining

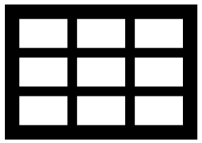


NUMBERS

TEXT



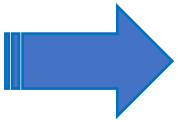
Lexicon-based Text Mining



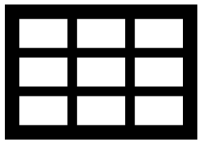
NUMBERS

Lexicon = A set of keywords that is related to specific concept

TEXT



Lexicon-based Text Mining



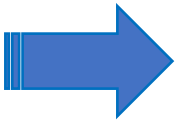
NUMBERS

Lexicon = A set of keywords that is related to specific concept

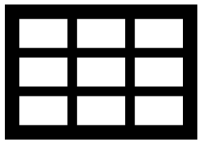
Positive = { good, great, happy, … }

Negative = {bad, worst, horrible, ... }

TEXT



Lexicon-based Text Mining



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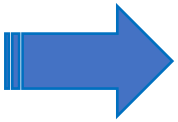
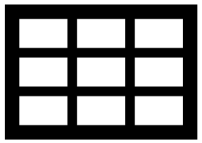


Lexicon-based Text Mining



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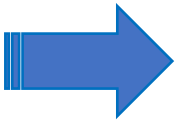

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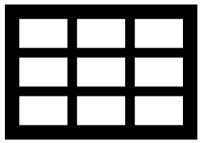


NUMBERS

Positive = { good, great, happy, … }

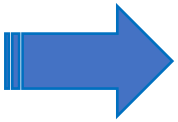
Negative = {bad, worst, horrible, ... }

D1  *"The movie was **great**. I was **happy**."*

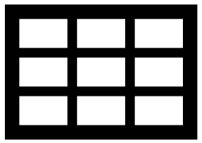
D2  *"The movie opens today."*

D3  *"The movie is **horrible**."*

TEXT



Lexicon-based Text Mining



NUMBERS

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Negative = {bad, worst, horrible, ... }

D1 

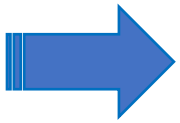
*"The movie was **great**. I was **happy**."*

D2 

"The movie opens today."

D3 

*"The movie is **horrible**."*

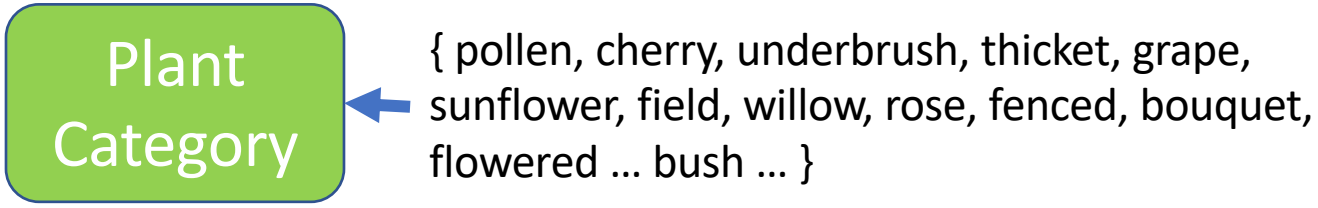


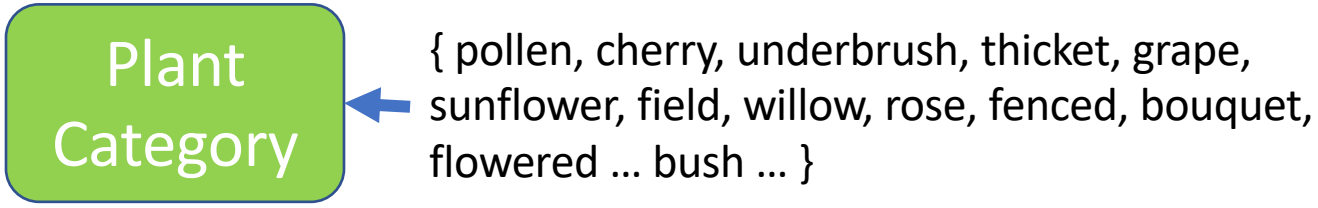
	Positive	Negative
D1	2	0
D2	0	0
D3	0	1

Two problems

X 3,000

Tweets from Trump and Hillary during 2016 election


Plant Category
{ pollen, cherry, underbrush, thicket, grape, sunflower, field, willow, rose, fenced, bouquet, flowered … bush … }

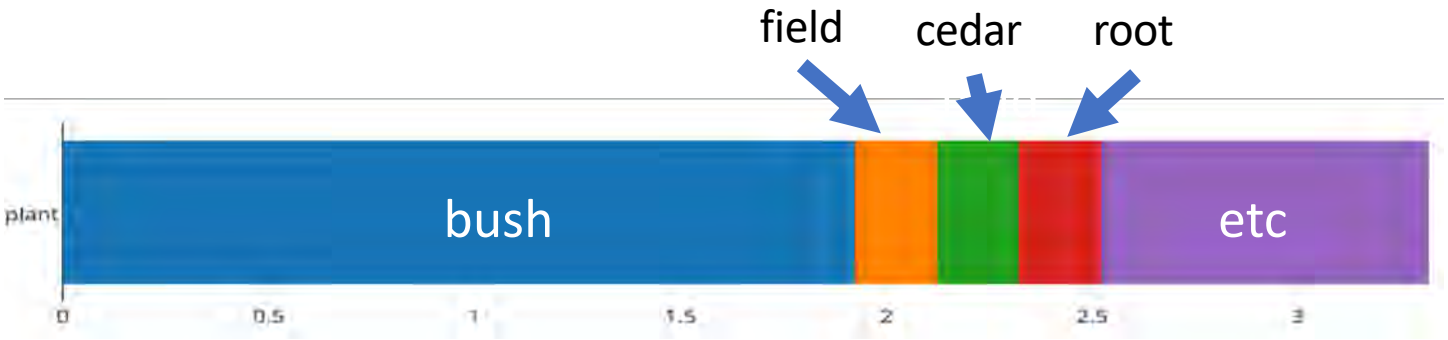


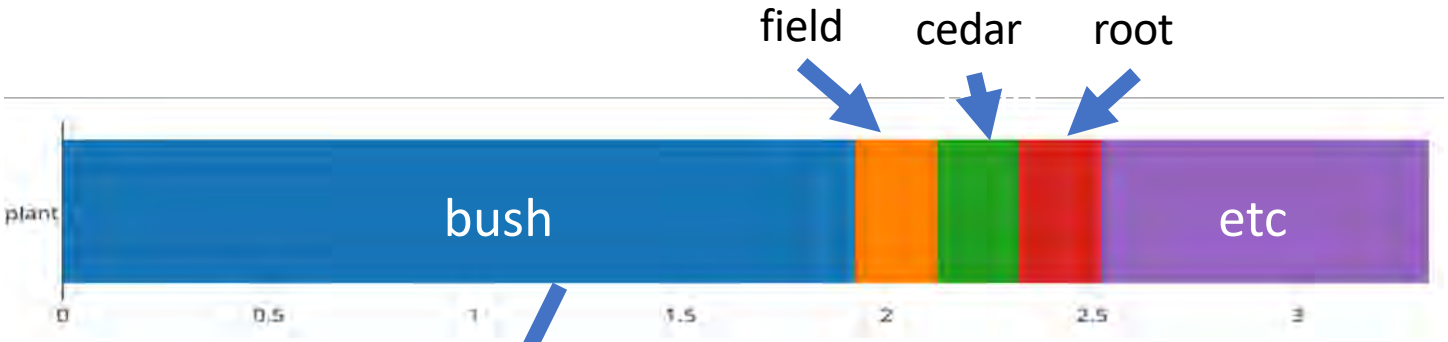
Trump talked 3.31 times more about Plant than Hillary

Plant Category

{ pollen, cherry, underbrush, thicket, grape, sunflower, field, willow, rose, fenced, bouquet, flowered … bush … }

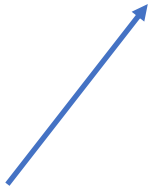
Trump talked 3.31 times more about Plant than Hillary


field
cedar
root
plant
bush
etc
0
0.5
1
1.5
2
2.5
3


field
cedar
root
plant
bush
etc
0
0.5
1
1.5
2
2.5
3

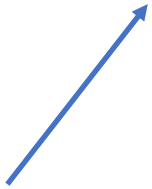

Donald J. Trump
@realDonaldTrump
Follow
Jeb Bush just got contact lenses and got rid of the glasses. He wants to look cool, but it's far too late. 1% in Nevada!

~~Trump talked 3.31 times more about Plant than Hillary~~



False positive errors

~~Trump talked 3.31 times more about Plant than Hillary~~

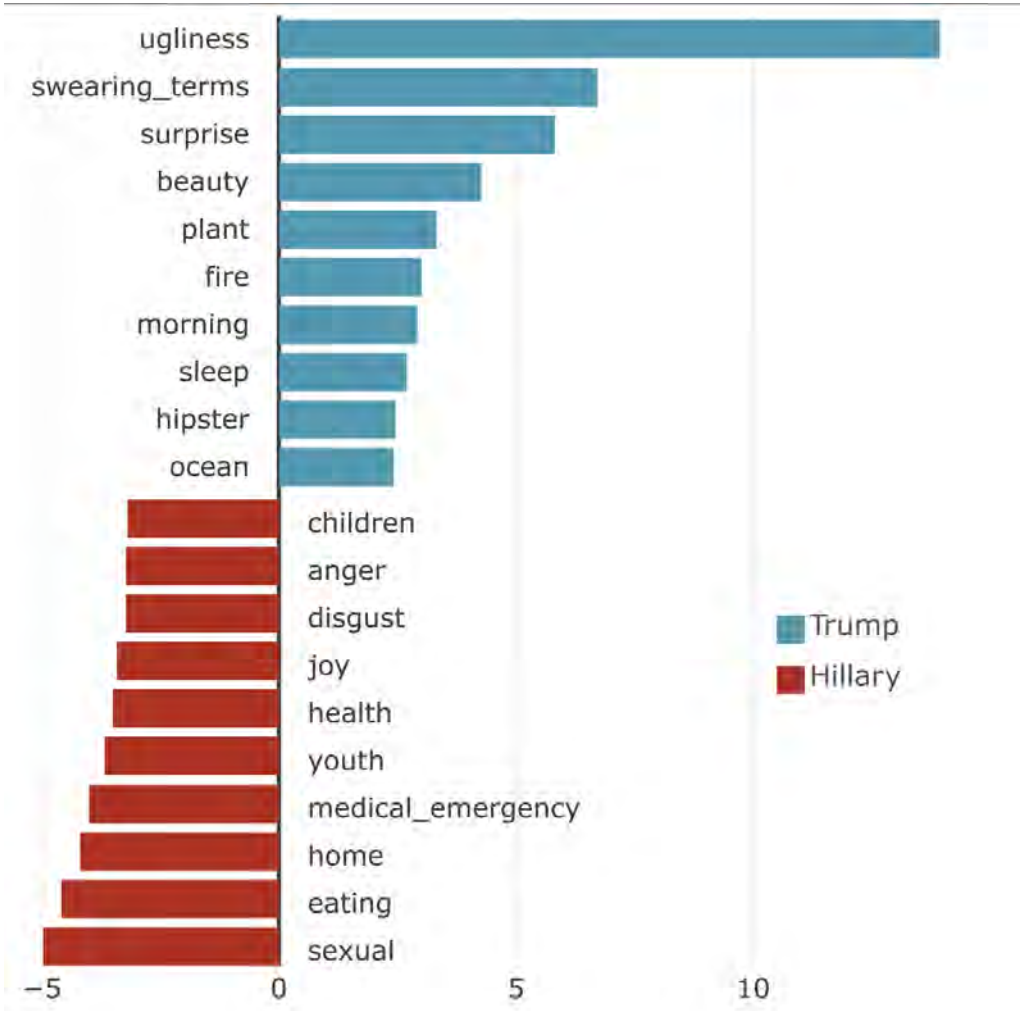


False positive errors

Polysemy
bush – n . a low plant with many branches that arise from or near the ground.
Bush – n. Jeff Bush

Top 10 categories

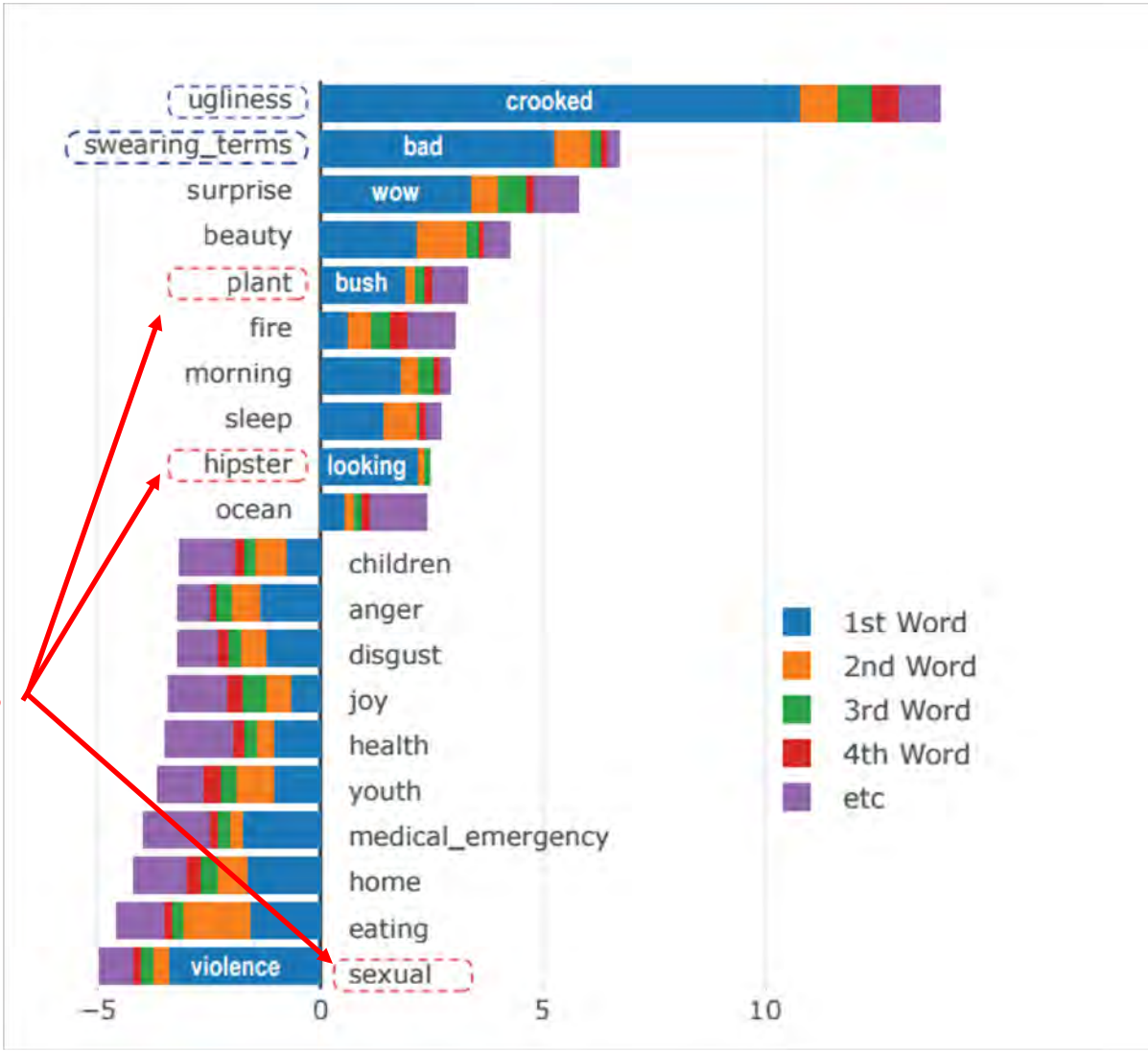
Trump vs Hillary



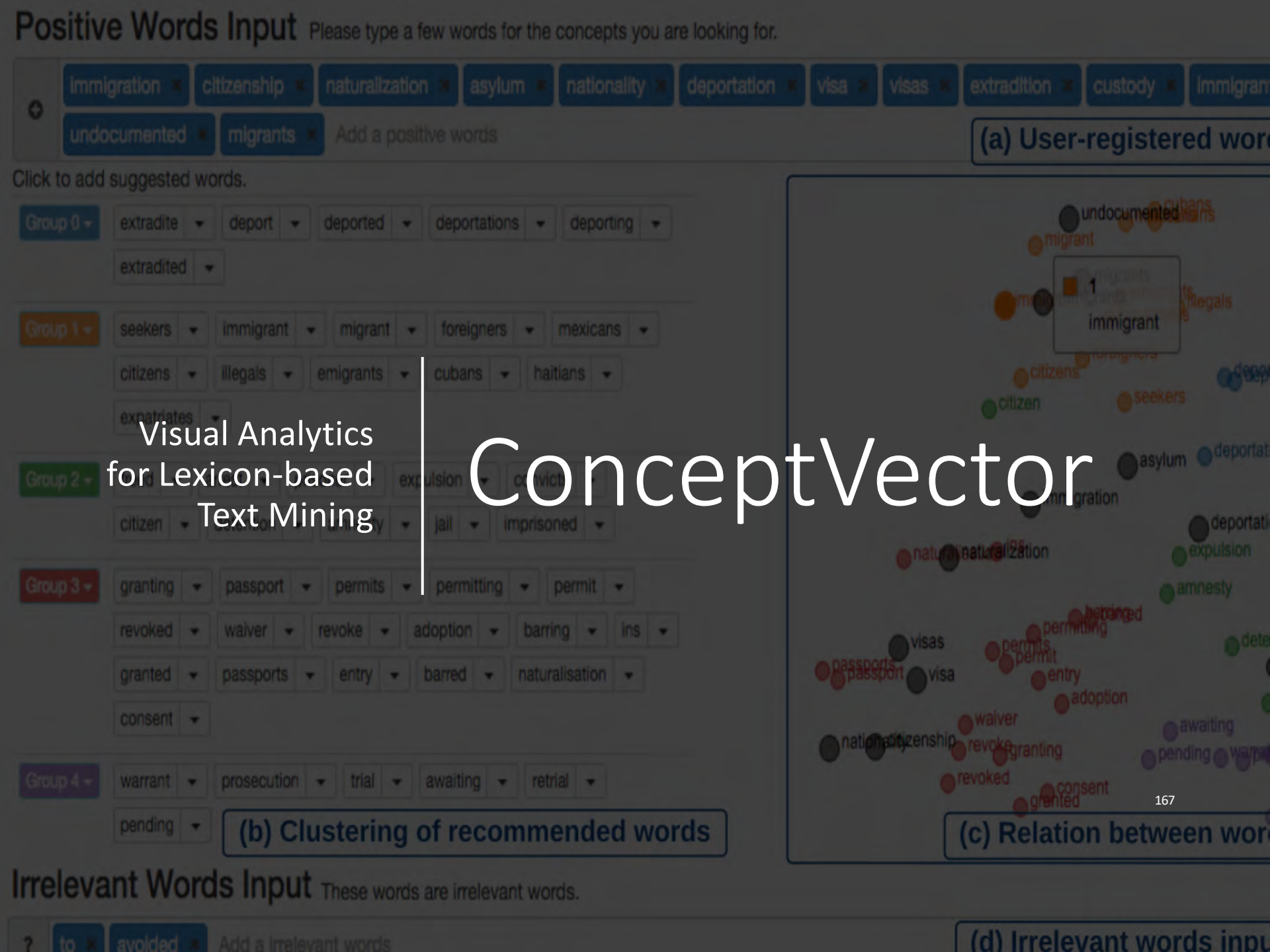
Top 10 categories

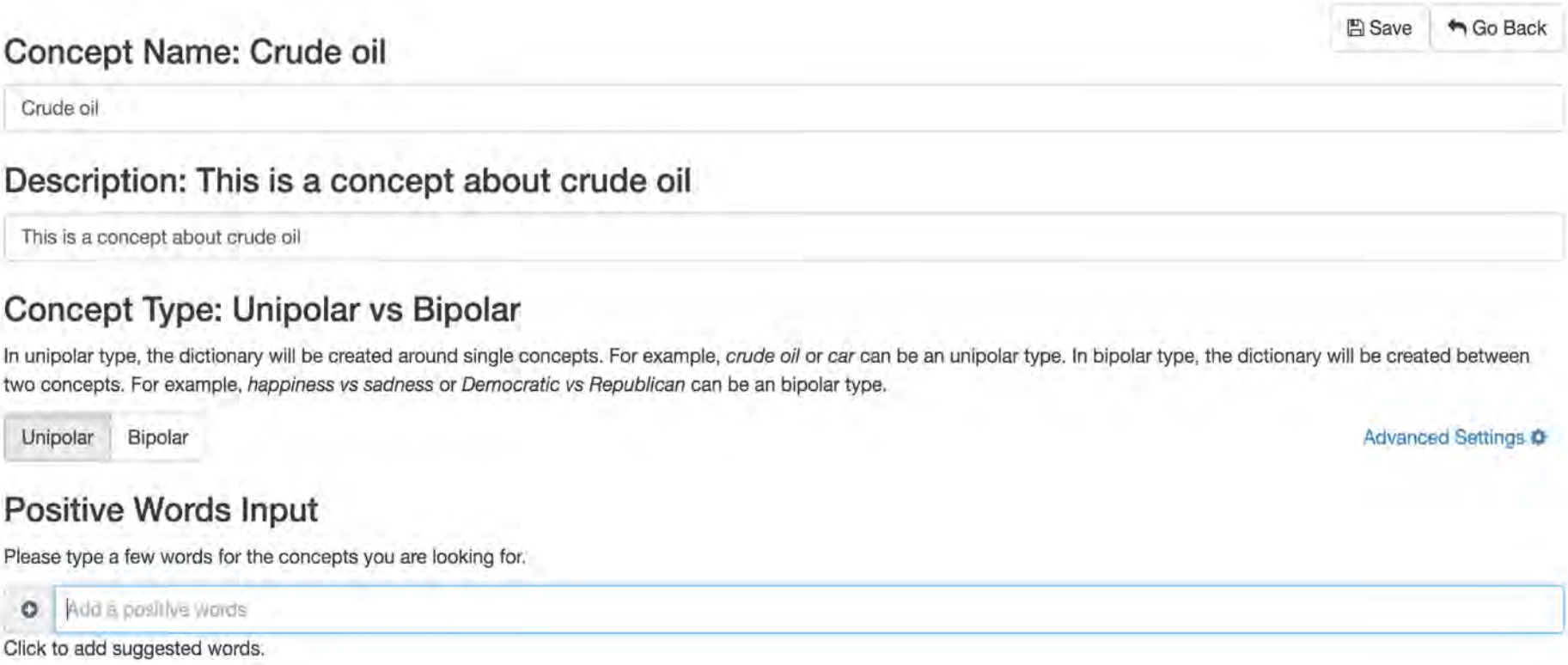
Trump vs Hillary

Type II Errors



What if we don’t have the dictionary?


Positive Words Input
Please type a few words for the concepts you are looking for.
immigration
citizenship
naturalization
asylum
nationality
deportation
visa
visas
extradition
custody
undocumented
migrants
Add a positive words
(a) User-registered word
Click to add suggested words.
Group 0
extradite
deport
deported
deportations
deporting
extradited
Group 1
seekers
immigrant
migrant
foreigners
mexicans
citizens
illegals
emigrants
cubans
haitians
expatriates
Group 2
citizen
jail
imprisoned
Group 3
granting
passport
permits
permitting
permit
revoked
waiver
revoke
adoption
barring
ins
granted
passports
entry
barred
naturalisation
consent
Group 4
warrant
prosecution
trial
awaiting
retrial
pending
(b) Clustering of recommended words
Visual Analytics for Lexicon-based Text Mining
ConceptVector
undocumented
migrant
1
immigrant
illegals
citizens
citizen
seekers
asylum
deportation
expulsion
amnesty
visas
visa
passports
passport
permits
permit
entry
adoption
waiver
awaiting
revoke
granting
pending
revoked
consent
granted
(c) Relation between word
Irrelevant Words Input
These words are irrelevant words.
to
avoided
Add a irrelevant words
(d) Irrelevant words input



Building dictionary

No Data Available.

How to build Lexicon

word embedding

Frog

0.34	.7	0.67	0.9	…

Car

0.53	0.23	0.35	0.21	…

Pennington, Jeffrey, Richard Socher, and Christopher Manning. "Glove: Global vectors for word representation." *Proceedings of the 2014 conference on empirical methods in natural language processing (EMNLP)*. 2014.

Goldberg, Yoav, and Omer Levy. "word2vec Explained: deriving Mikolov et al.'s negative-sampling word-embedding method." *arXiv preprint arXiv:1402.3722* (2014).

How to build Lexicon

word embedding

Nearest Neighbor

Frog

1. Frogs
2. Toad
3. Litoria
4. Leptodacitylidae
5. Rana
6. Lizard
7. eleutherodactylus




How to build Lexicon

word embedding

Nearest Neighbor

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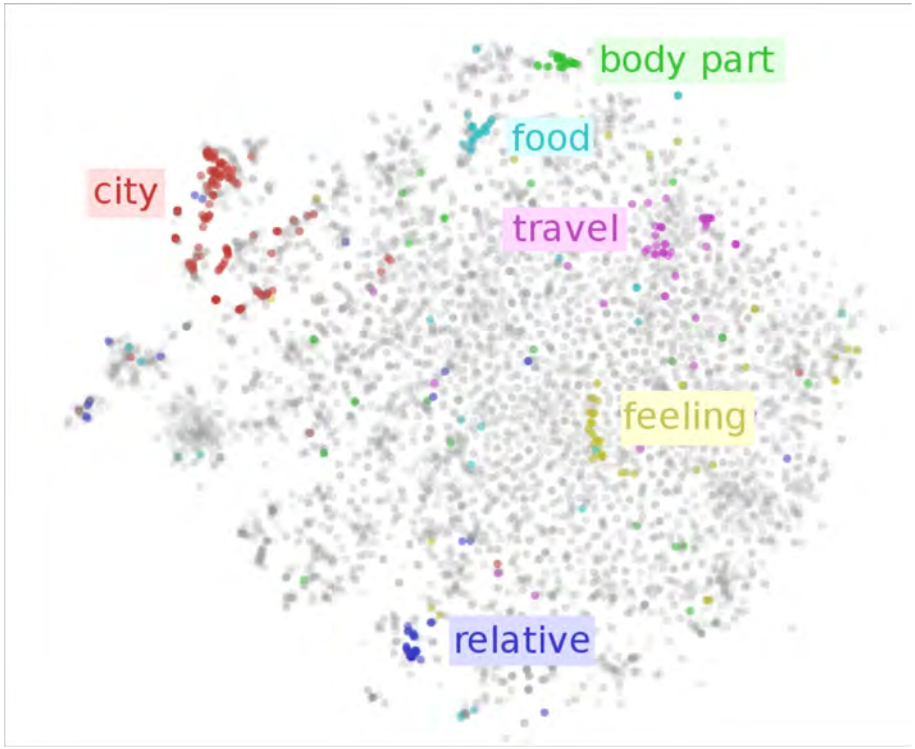
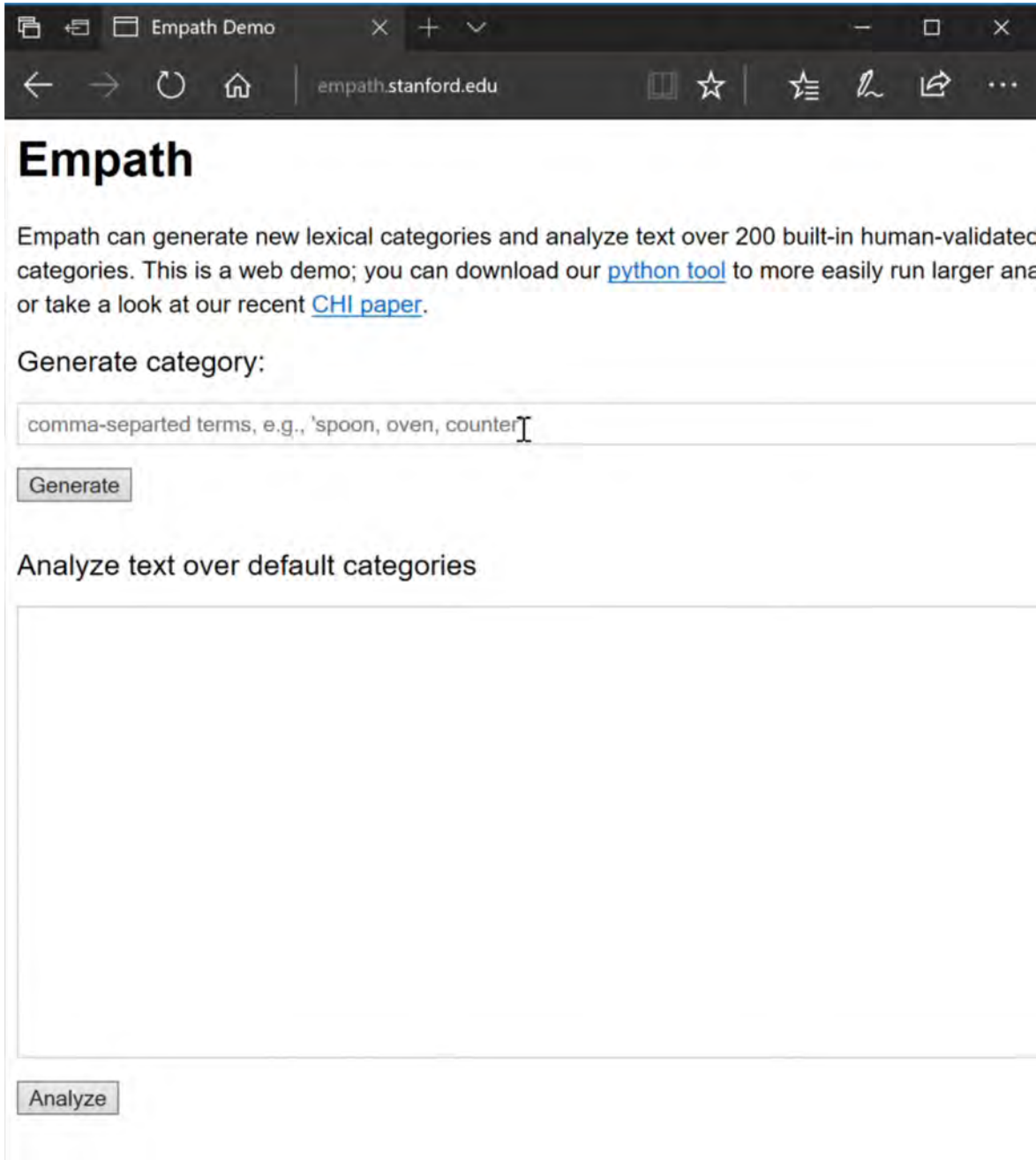


Image from http://cs.stanford.edu/people/karpathy/tsnejs/wordvecs.html

Previous Work

Fast, E., Chen, B., & Bernstein, M. S. (2016, May). Empath: Understanding topic signals in large-scale text. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (pp. 4647-4657). ACM.



Sophisticated concept modeling

Irrelevant words

I am interest in “tidal flooding”, not “storm flooding.”

Sophisticated concept modeling

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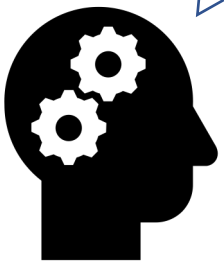
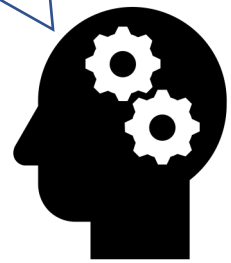


Bipolar Conceps

Can I map the words continuously from “Democratic party” to “Republican party”?



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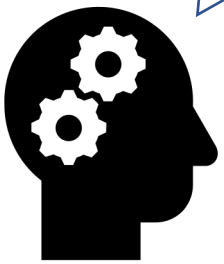

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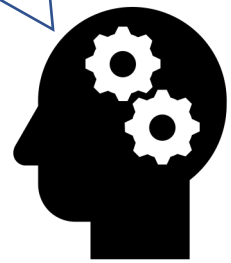
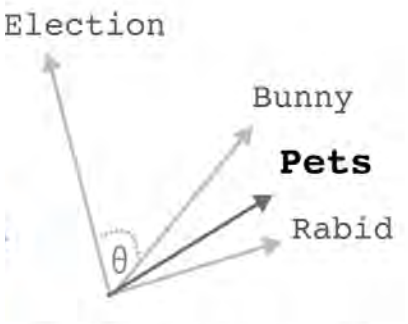


Kernel Density Estimation (**KDE**)

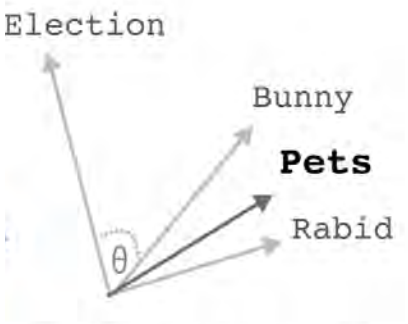
using Gaussian Kernel

where bandwidth represents selectivity of seed words



Cosine similarity for relevance score

Previous approach



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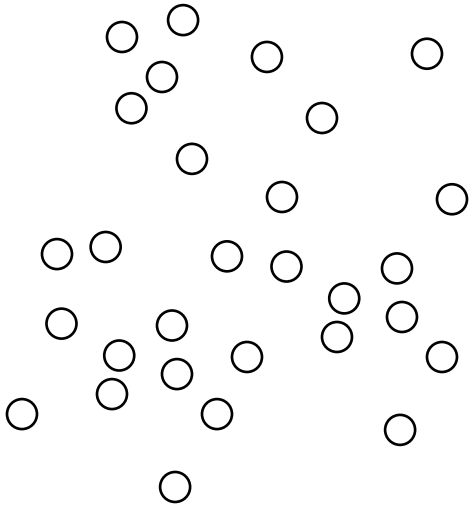
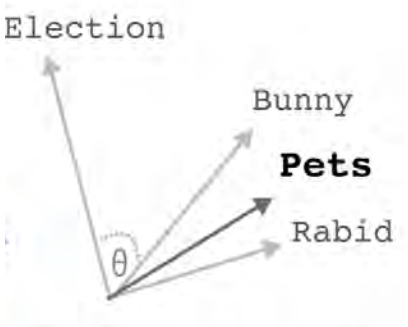
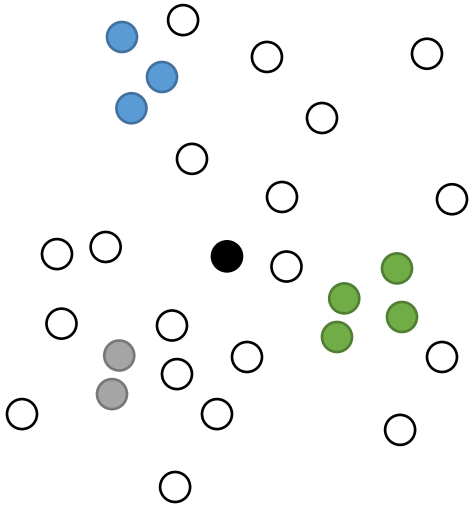
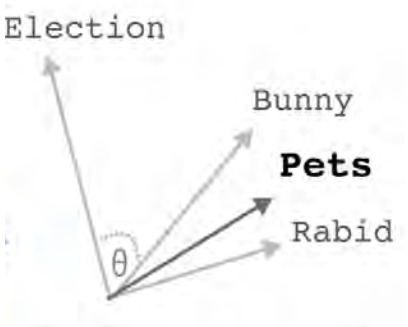


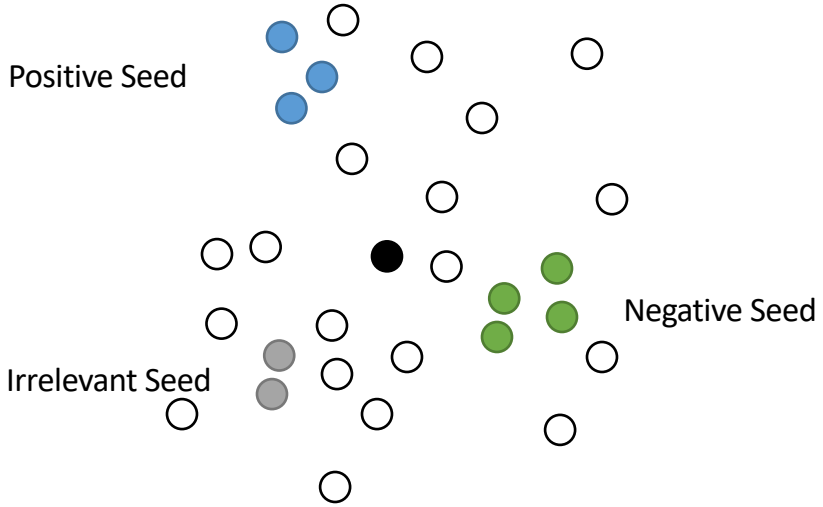


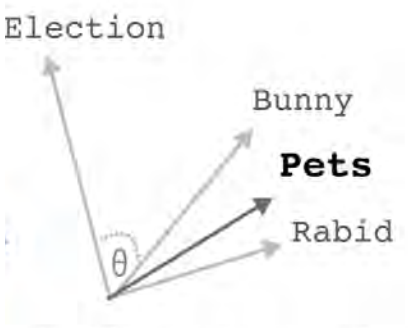
Cosine similarity for relevance score



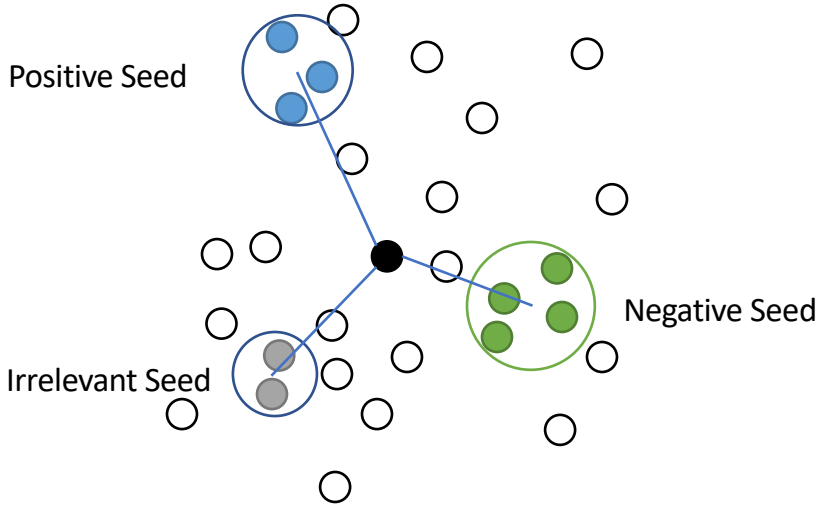


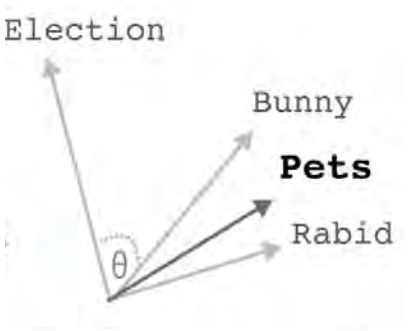
Cosine similarity for relevance score



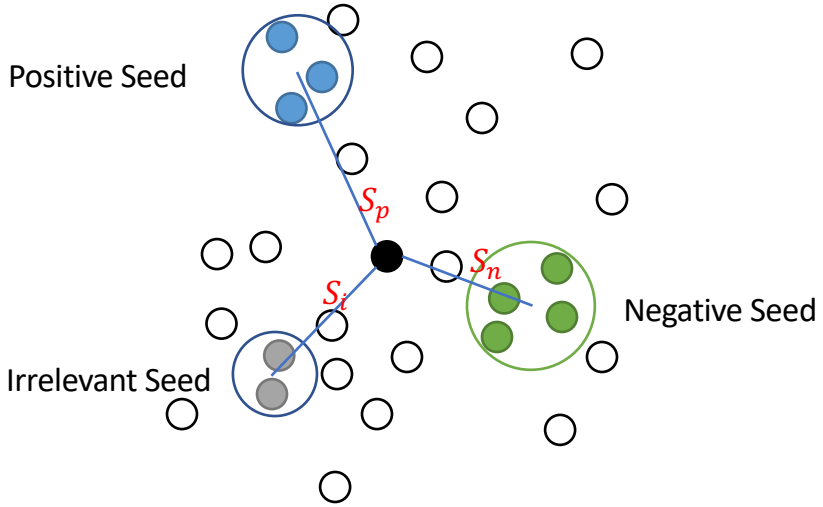


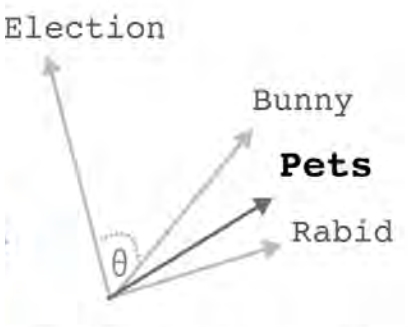
Cosine similarity for relevance score



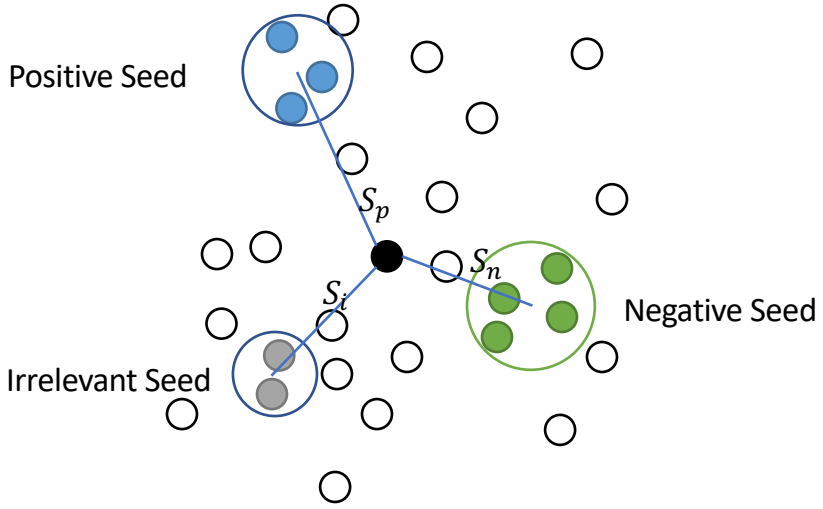


Cosine similarity for relevance score

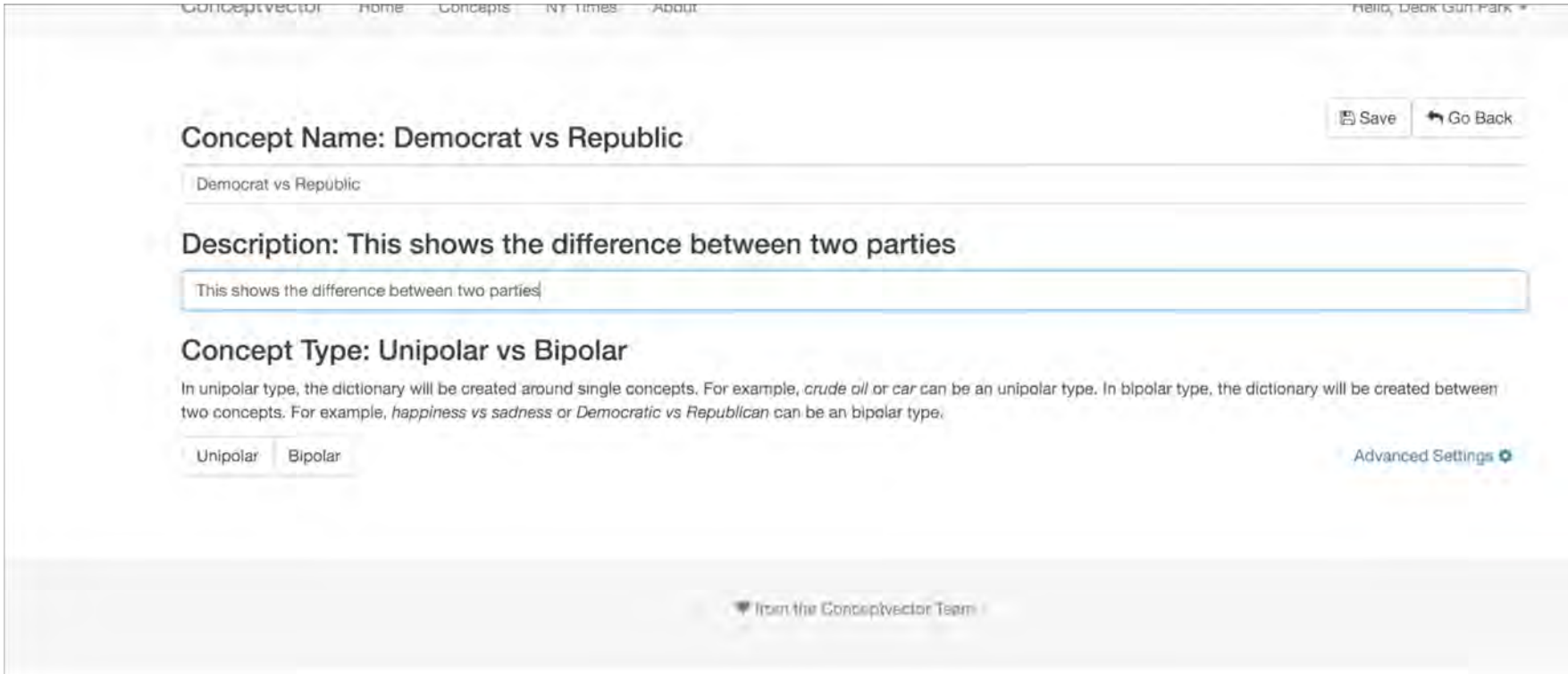




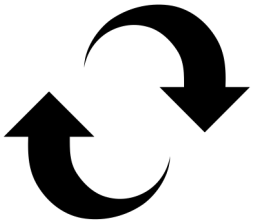
Cosine similarity for relevance score



$$Relevance = (1 - S_i) \cdot (S_p - S_n)$$



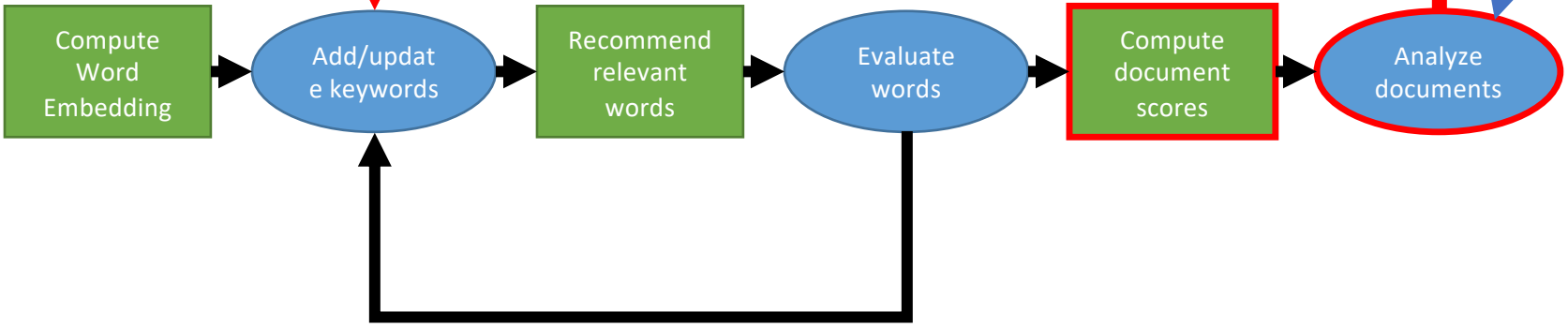
Bipolar concepts



D2: Integrated loop

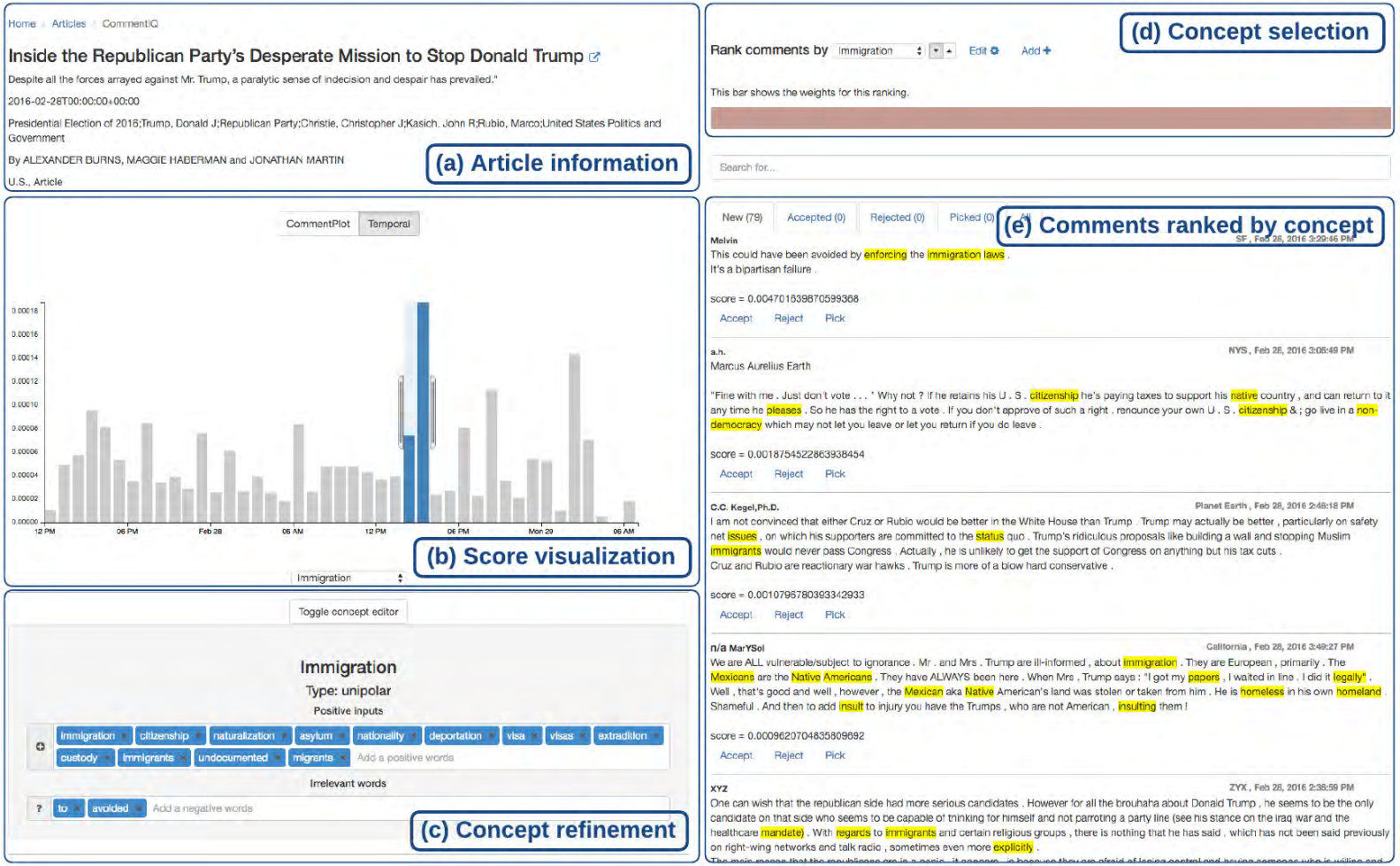
D3: In-context

Refinement of seed words
Based on document analysis



Refinement of seed words
Based on recommended words

Document Analysis



SECTIONS HOME SEARCH The New York Times

1.  Top Russian Officials Discussed How to Influence Trump Aides Last Summer

2.  Greg Gianforte, G.O.P. House Candidate, Is Accused of 'Body-Slamming' Guardian...

3.  They Went to Manchester Arena as Homeless Men. They Left as Heroes.

4. 

ELECTION 2016 Full Results Exit Polls Trump's Cabinet

Inside the Republican Party's Desperate Mission to

By ALEXANDER BURNS, MAGGIE HABERMAN and JONATHAN MARTIN FEB. 27, 2016

Donald J. Trump speaking in Milford, N.H., a week before the state's primary this month. Some establishment Republicans have been scrambling for a way to prevent him from becoming the party's presidential nominee.
Damon Winter/The New York Times

2763 COMMENTS

Readers shared their thoughts on this article.

The comments section is closed. To submit a letter to the editor for publication, write to letters@nytimes.com.

All 2763 | Readers' Picks 1721 | NYT Picks 21

David Weaver Orlando · February 27, 2016

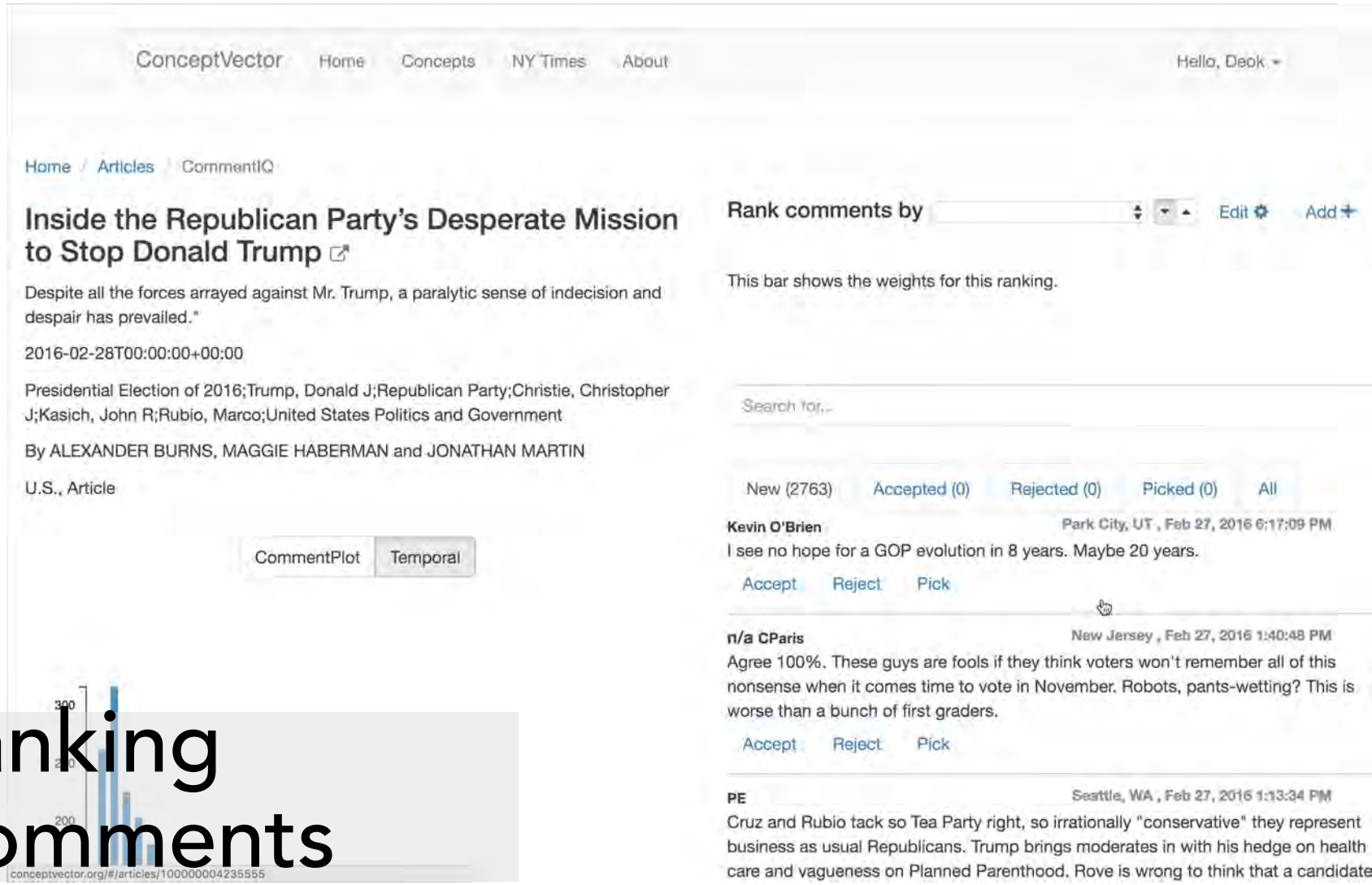
The political industry does not realize that it is in the middle of a hostile takeover from people who are beyond sick and tired of insiders who use the aspirations of hard working people to line their pockets.

Is Trump perfect? Nope. But the leaders of this nations political indu$try have failed us miserably. Hopefully the "we know what's best for you" crowd has its' days numbered.

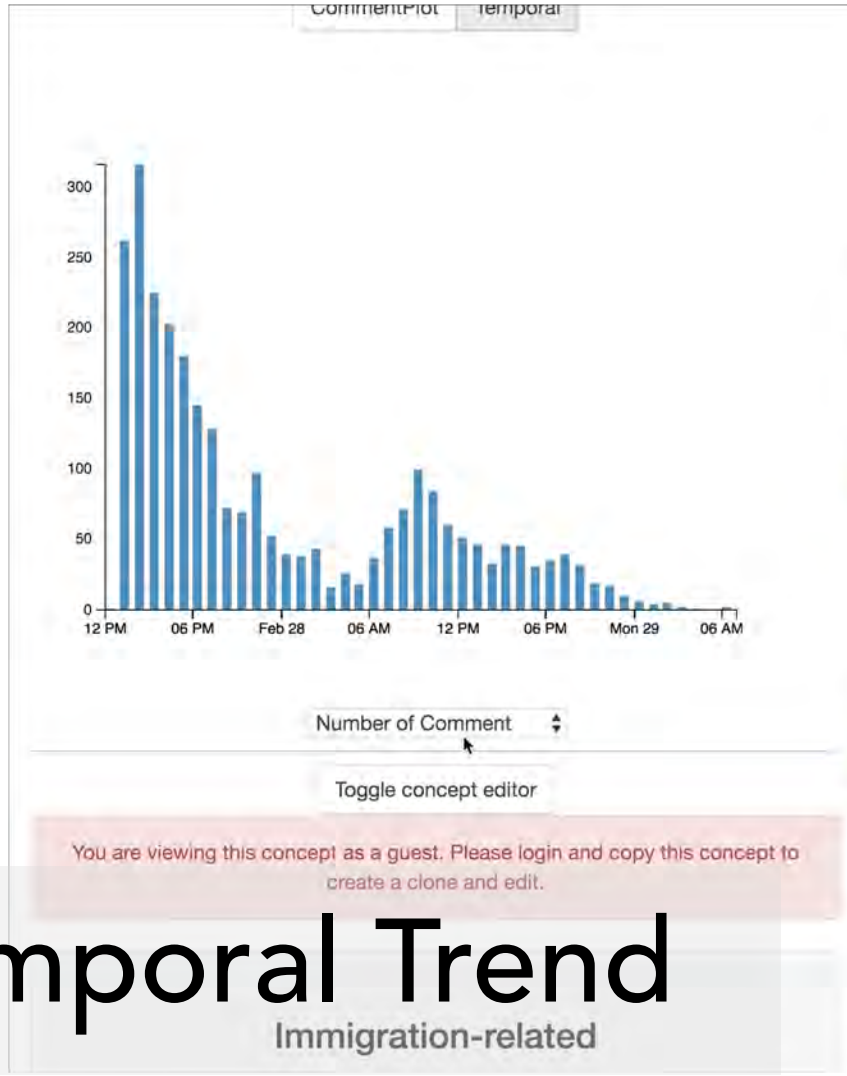
1100 Recommend

Gfagan PA · February 27, 2016

Dr. Frankenstien frantically nailed the planks into place, trying to seal his laboratory off from the rest of the world.
What would happen if the Monster got out? What if people realized he had created it?
The pounding from the inside increased in intensity. The Monster roared. It sounded like "Yuge!"
Dr. Frankenstein wondered what that might mean, then resumed hammering on the nails.
But the door gave way and the boards he was trying to nail in place began to bend under the Monster's fists.
Rage. That is all the doctor saw in the contorted, strangely orange face of his creation.
"Yuge!"
Splinters began flying from the boards.
Dr. Frankenstein turned his back and ran. He'd go to the House. There, at least, he'd be safe doing nothing.
When the questions came, the doctor would deny everything. He'd blame his neighbor, Mr. Obama.
Yes, that would work. That would deflect attention away from his own nefarious activities, spread over the preceding decades, that had led to this catastrophe.
It was now up to others to deal with his Creation.



Ranking Comments



Temporal Trend

Immigration-related

and don't want to do anything about illegal immigration . Immigration effects everythi

score = 0.009691857174335334

Accept Reject Pick

Melvin SF , Feb 28, 2016 3:29:46 PM

This could have been avoided by enforcing the immigration laws .
It's a bipartisan failure .

score = 0.00565333256500768

Accept Reject Pick

Bahtat San Diego , Feb 27, 2016 4:02:37 PM

The GOP elites have another great love for Illegal Immigrants . As well as being cheap labor , they are not allowed to VOTE .

score = 0.005202291401691696

Accept Reject Pick

Ali Michigan , Feb 27, 2016 7:10:03 PM

Too bad they simply weren't willing to give up amnesty and more immigration , legal and illegal . They complain about gov't subsidies to business yet that's just what illeg aliens and immigrants are , subsidies . Immigration is the focus of much of what's wrong in this country , to those supporting Trump . from unemployment to under performing schools to high healthcare costs and water shortages .

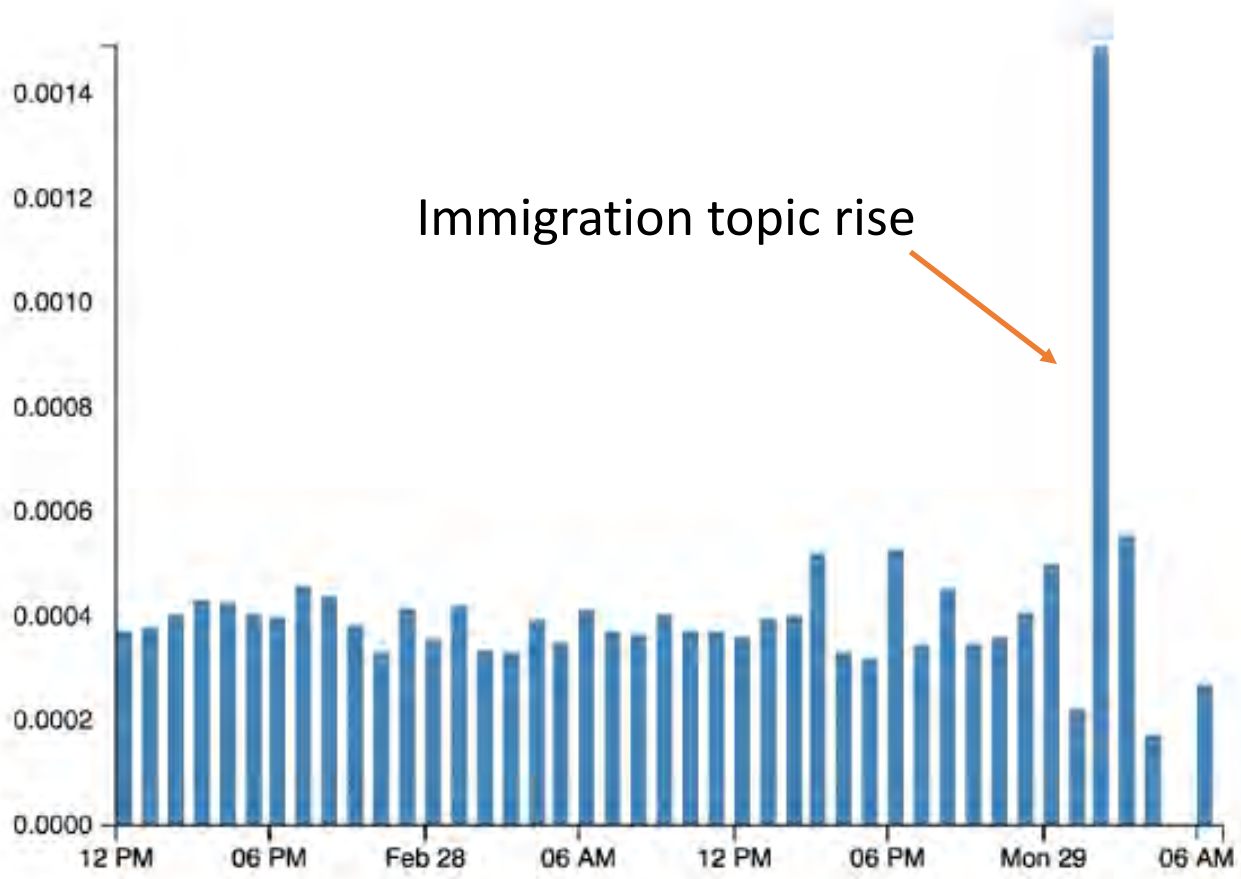
score = 0.004590839907424656

Accept Reject Pick

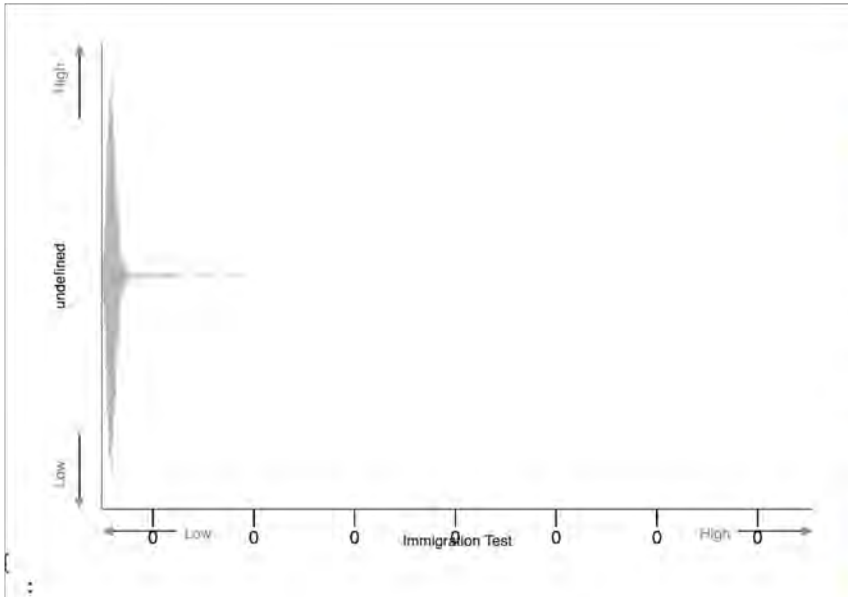
jmf denver, co , Feb 27, 2016 3:15:43 PM

No its not . Who has stopped all ways to get rid of illegals ? Who has allowed massiv amounts of legal immigration ? Its both of them so that average people cant exist wh

Immigration



Time



Show me Immigration Test vs . -- undefined --

Toggle concept editor

Update success! Score is calculated based on updated concept.

Immigration Test

Type: unipolar

Positive inputs

want to end this rot in the system ? amend the constitution ! 1) Limit members of Congress to a 4yr single term . that gets them out of the business of endlessly seeking fat cat sponsors , and brings them to the business of true governance . the same applies to senators . let them all step aside after a term to give others also the chance to "serve the American people . " 2) Get the Citizens United judgement reversed . No more big money super-packs . 3) Apportion equal time to all candidates on the media . the media has overplayed the "elections are a spectator/gladiatorial sport" angle , by focusing on their ratings and the 'fun , and the bloodier' candidates . 4) Election day should be declared a holiday , so all can afford to go to vote . Even a far poorer country like India , has this . 5) make voting compulsory . We want a democratic country ? then let's get off our couches .

score = 0.0006589178749339568

Accept Reject Pick

goeasyonus great nw , Feb 29, 2016 2:29:17 AM

Trump exudes leadership , we havent had a leader as president since Reagan . The country is sick and tired of vanilla wrapper puppets in the WH . Trump is a real person , speaks his mind , has the country first attitude . . . . . and owes no one . . . . . .

score = 0.00014680238075992264

Accept Reject Pick

goeasyonus great nw , Feb 29, 2016 2:37:44 AM

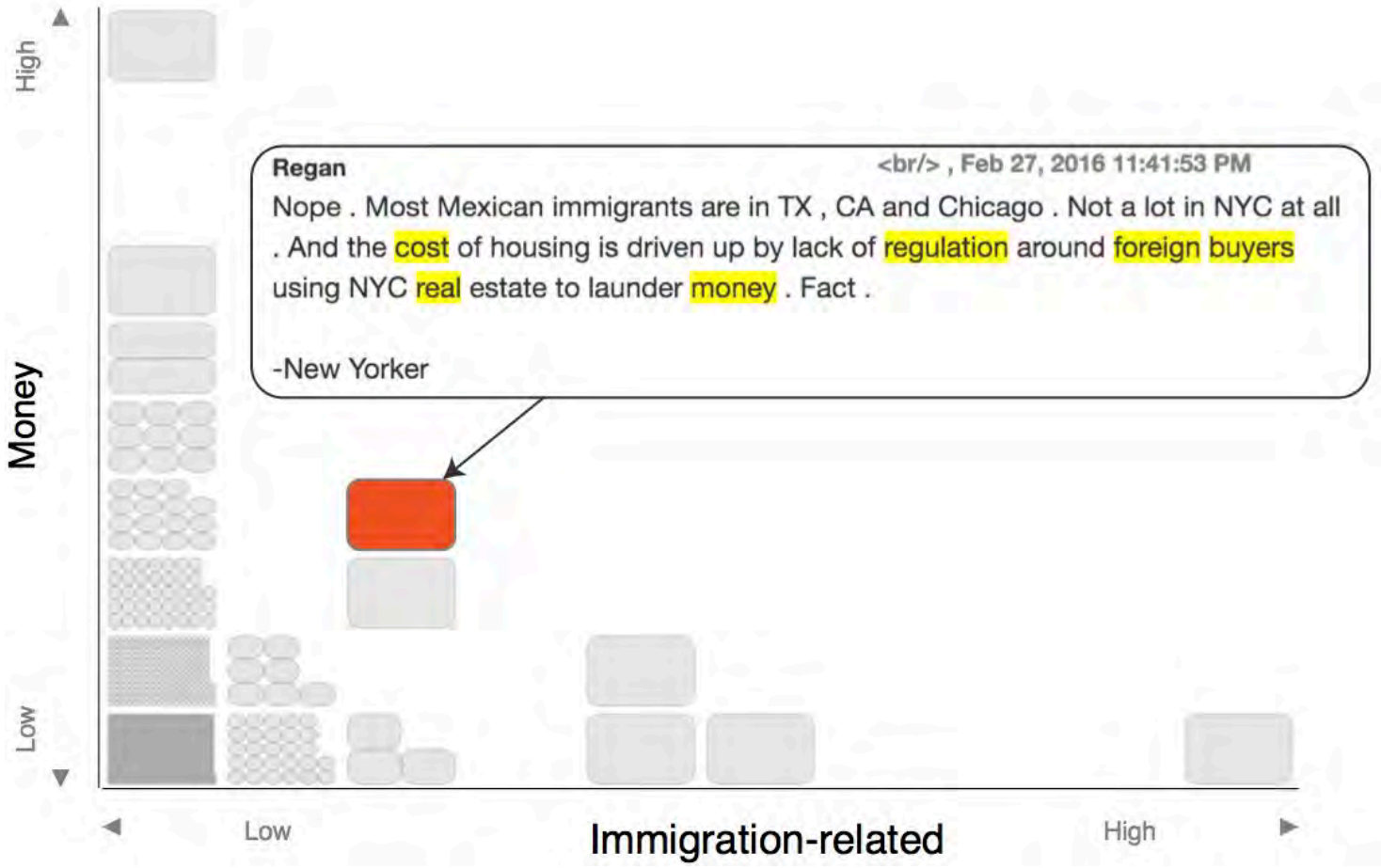
being a democrat , arent you more knowledgeable of the dem party than the repub party ? ? why dont u tell us all the great things the dem party is doing for the country .

Why do those with the loudest complaints always ' belong ' to a party ? Too bad more voters dont think for themselves .

score = 0.00011201416478632322

Accept Reject Pick

Comment Plot


High
Money
Low
Regan

 , Feb 27, 2016 11:41:53 PM
Nope . Most Mexican immigrants are in TX , CA and Chicago . Not a lot in NYC at all . And the cost of housing is driven up by lack of regulation around foreign buyers using NYC real estate to launder money . Fact .
-New Yorker
Low
Immigration-related
High

Take-away Message

- You can build custom dictionary for your own domain and analyze text.

- Interactive refinement may improve quality of text analysis by reducing false positive errors.

Park, Deokgun, Seungyeon Kim, Jurim Lee, Jaegul Choo, Nicholas Diakopoulos, and Niklas Elmqvist. Conceptvector: Text visual analytics via interactive lexicon building using word. IEEE transactions on visualization and computer graphics (TVCG)

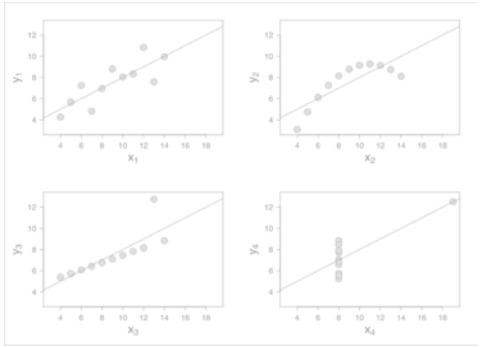
Image Credit: Segmentnext.com

Visual Analytics

Scales up
open-ended tasks.

Comments Analytics

Future Works



Visual Analytics

Scales up
open-ended tasks.

Comment Analytics

Help comments
moderation and interactive
semantic analysis

Future Works

Visual Analytics

Scales up
open-ended tasks.

Comment Analytics

Help comments
moderation and interactive
semantic analysis

Future Works

Future work

Defending Digital Democracy

Defending Democracy against Organized attacks

Defending Democracy against Organized attacks

Now Two Former Presidents of South Korea Are Under Investigation

By CHOE SANG-HUN MARCH 13, 2018

Lee Myung-bak, a former South Korean president, speaking outside the prosecutors' office on Wednesday. "I feel dejected as I stand here," he said. Pool photo by Kim Hong-Ji

Defending Democracy against Organized attacks

Now Two Former Presidents of South Korea Are Under Investigation

By CHOE SANG-HUN MARCH 13, 2018

Lee Myung-bak, a former South K
Wednesday. "I feel dejected as I st

The New York Times SUBSCRIBE NOW LOG IN

Park Geun-hye, South Korea's Ousted Leader, Is Arrested and Jailed to Await Trial

By CHOE SANG-HUN MARCH 30, 2017

Park Geun-hye, South Korea's ousted president, left the prosecutors' office to be transferred to a detention house in Seoul on Friday. Pool photo by Chung Sung-Jun

Defending Democracy against Organized attacks

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Park Geun-hye, South Korea's ou
a detention house in Seoul on Fri

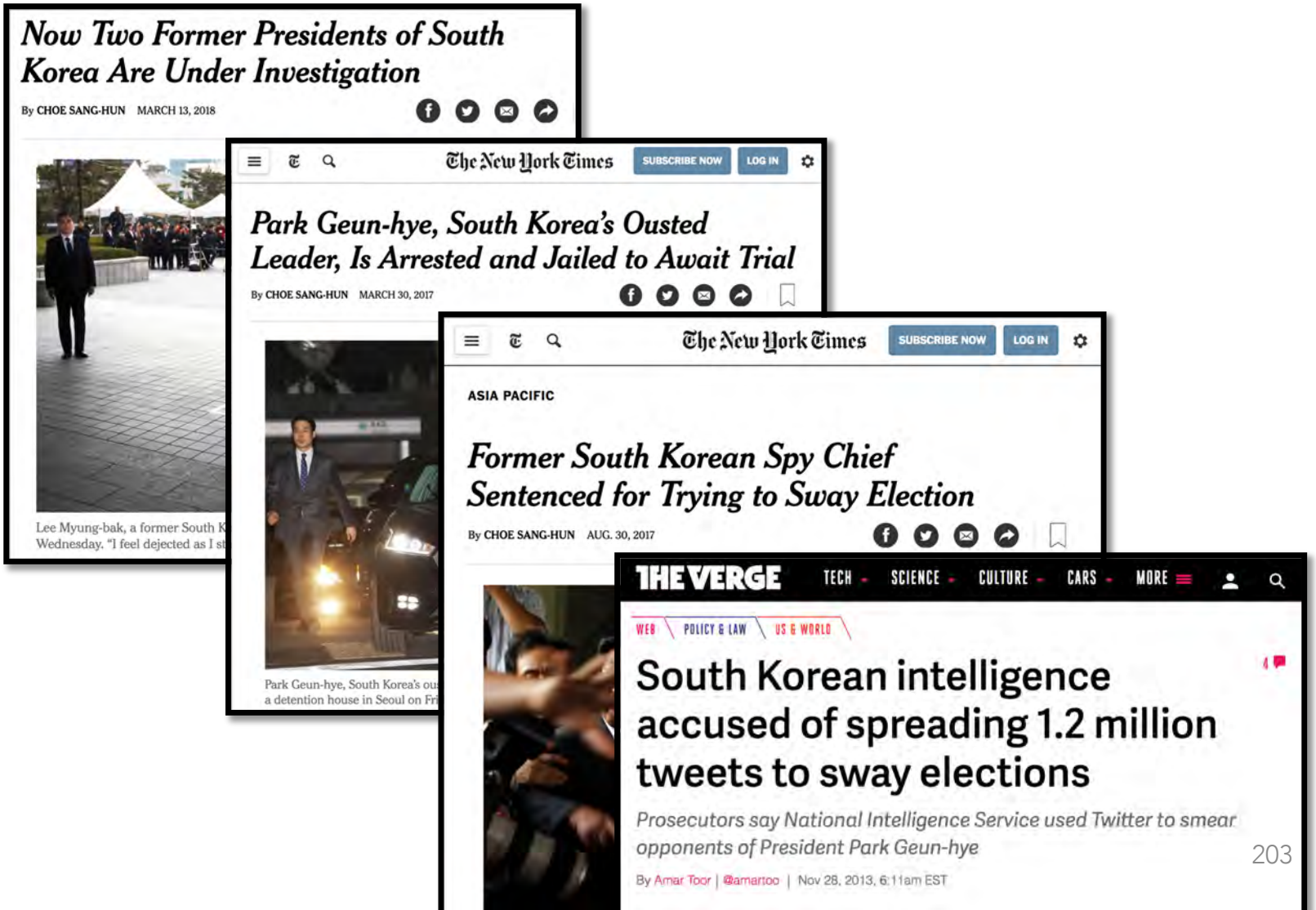
The New York Times SUBSCRIBE NOW LOG IN

ASIA PACIFIC

Former South Korean Spy Chief Sentenced for Trying to Sway Election

By CHOE SANG-HUN AUG. 30, 2017

Defending Democracy against Organized attacks



Organized Attacks

Who

- Korean Intelligence
  - 3,500 man/year
- Army Intelligence
  - 600 man/year
- Police
  - 80,000 man/year
- Army
  - 130 man/year
- Samsung
  - 150 man/year

Where

- Facebook
- Twitters
- News Article Comments
- Internet Forum

"A Carnegie Mellon scholar, Dov H. Levin, … 81 by the United States and 36 by the Soviet Union or Russia between 1946 and 2000"

Best Comment Attack Pattern

World

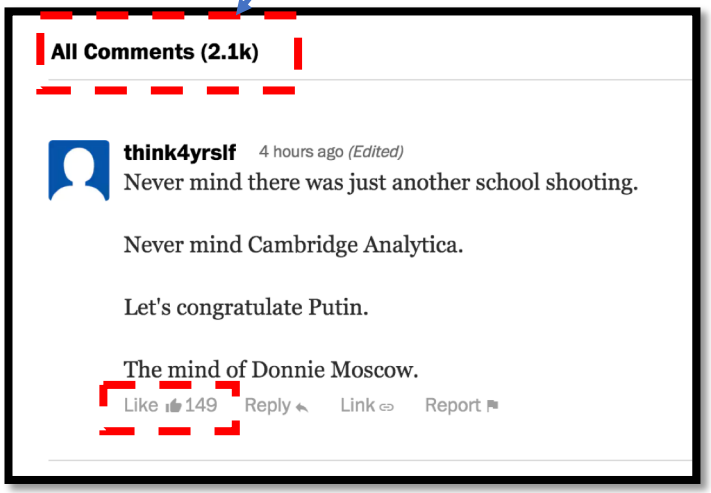
Trump congratulates Putin on his reelection, discusses U.S.-Russian ‘arms race’

President Trump also said that he will discuss what he described as an "arms race" with President Putin. (The Washington Post)

By Jenna Johnson and Anton Troianovski March 20 at 3:31 PM Email the author

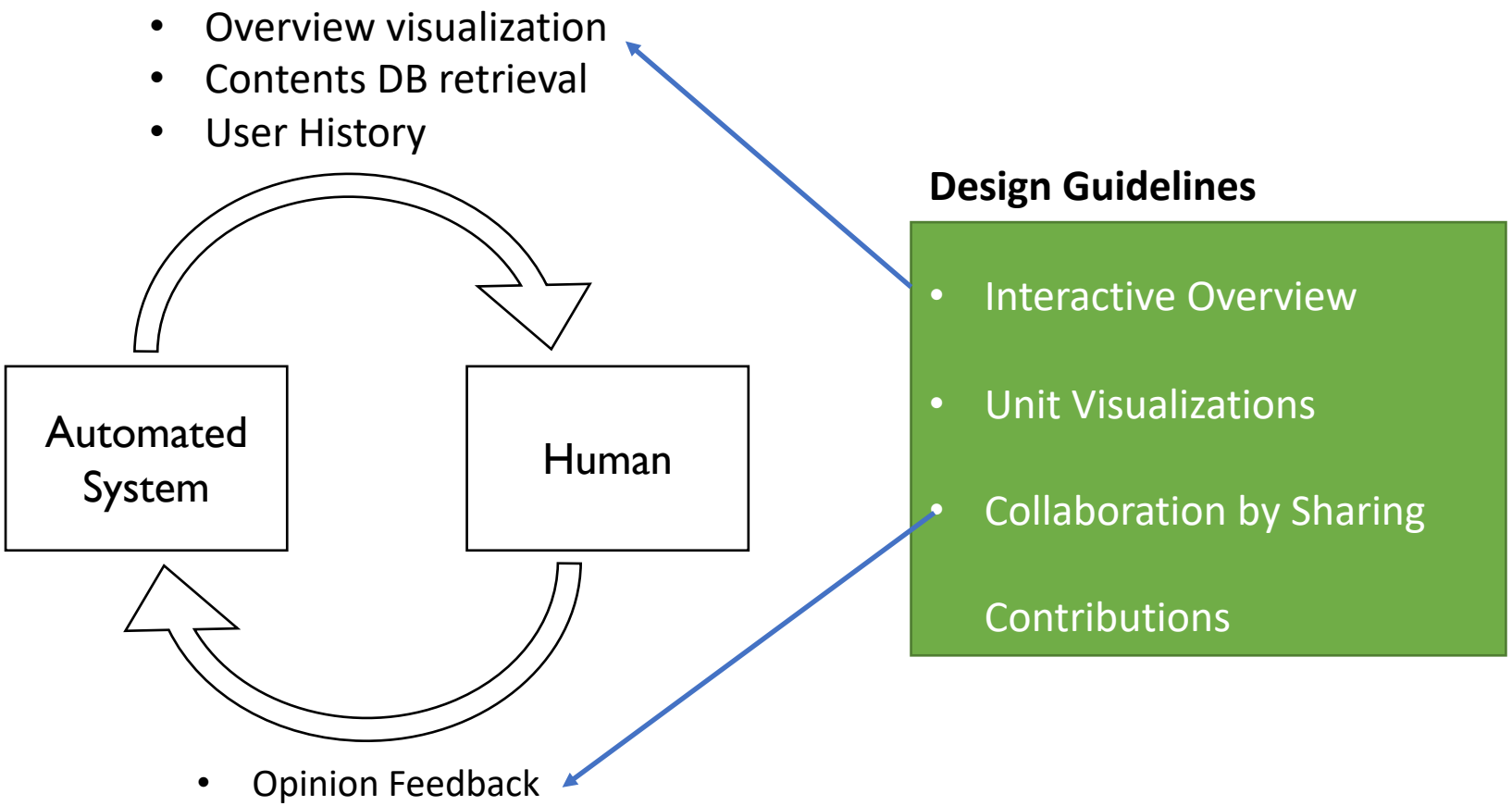
President Trump congratulated Russian President Vladimir Putin on his reelection victory in a phone call Tuesday and said he intends to meet with Putin to discuss various subjects, including an “arms race” that is “getting out of control.”

The battle ground
for Best comments

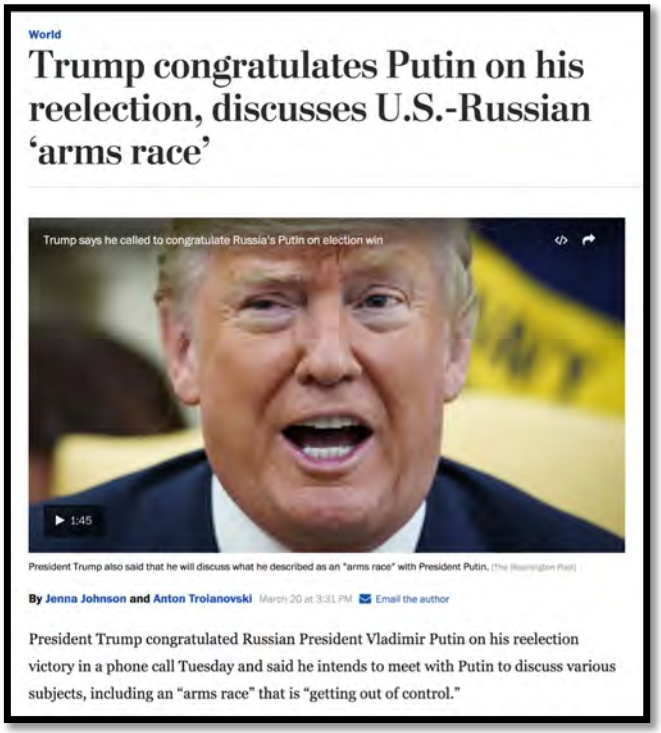


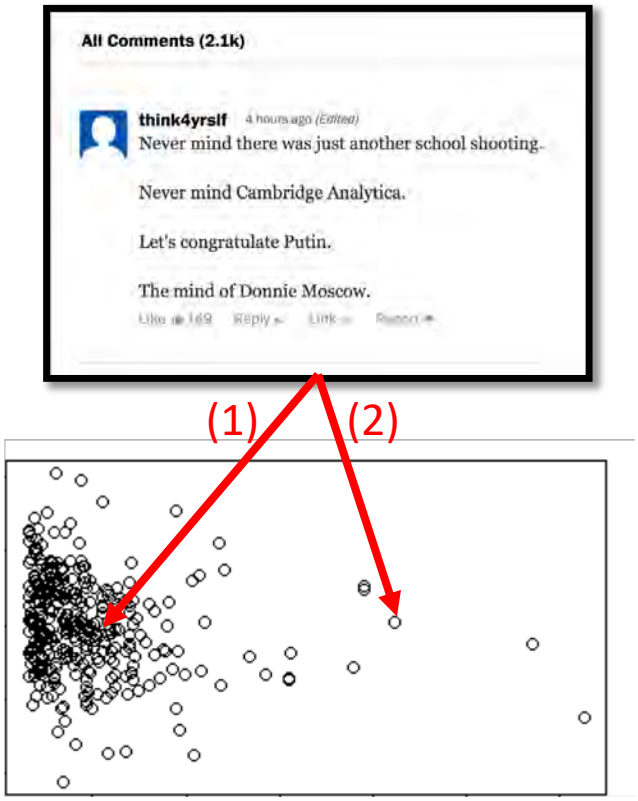
Herd behavior

Visual Analytics Approach



What if …


World
Trump congratulates Putin on his reelection, discusses U.S.-Russian 'arms race'
Trump says he called to congratulate Russia's Putin on election win
1:45
President Trump also said that he will discuss what he described as an "arms race" with President Putin.
By Jenna Johnson and Anton Troianovski
Email the author
President Trump congratulated Russian President Vladimir Putin on his reelection victory in a phone call Tuesday and said he intends to meet with Putin to discuss various subjects, including an "arms race" that is "getting out of control."


All Comments (2.1k)
think4yrslf
Never mind there was just another school shooting.
Never mind Cambridge Analytica.
Let's congratulate Putin.
The mind of Donnie Moscow.
(1)
(2)

Echo chamber & Filter bubbles

Image Credit: immediatefuture.co.uk

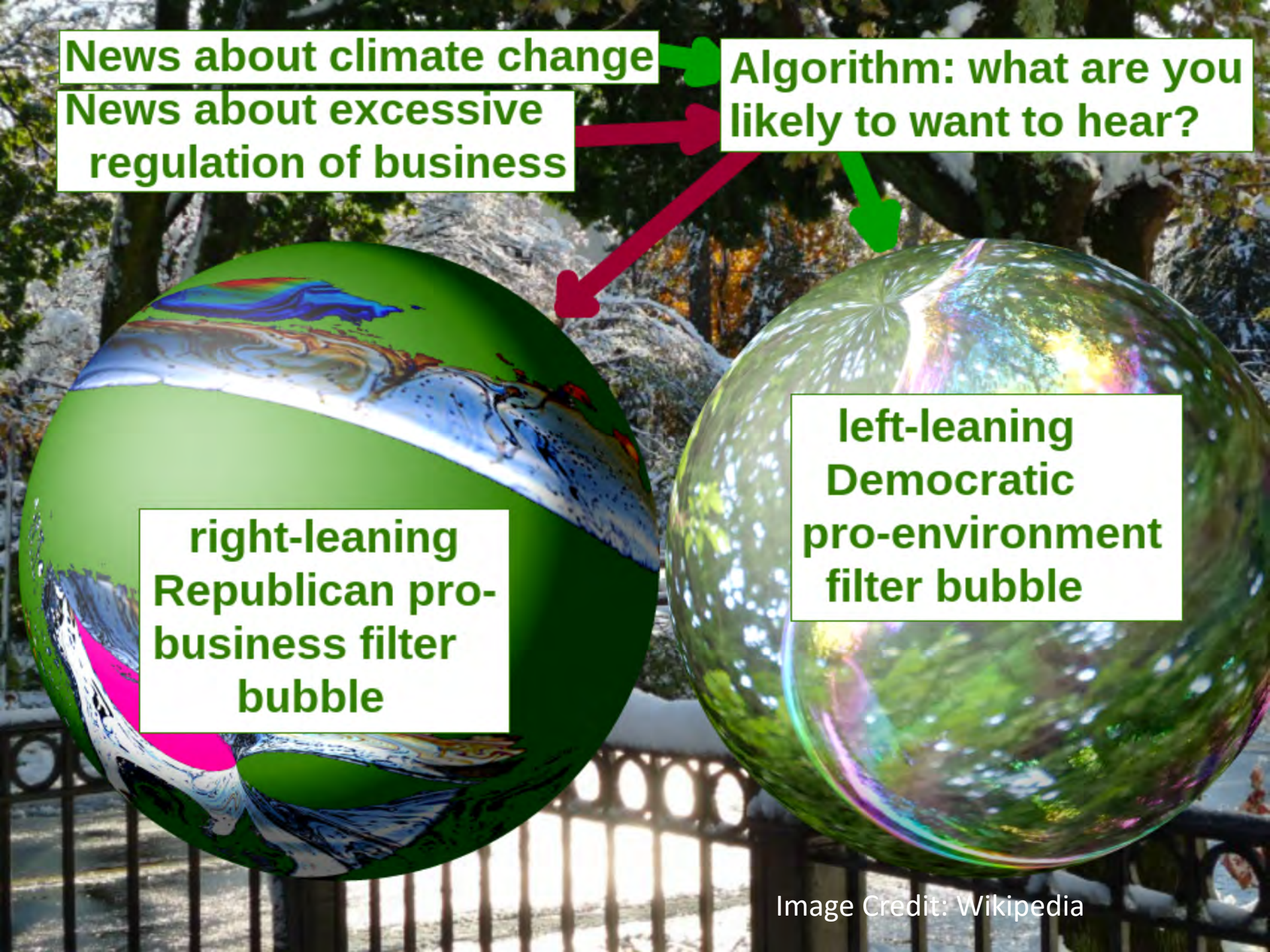
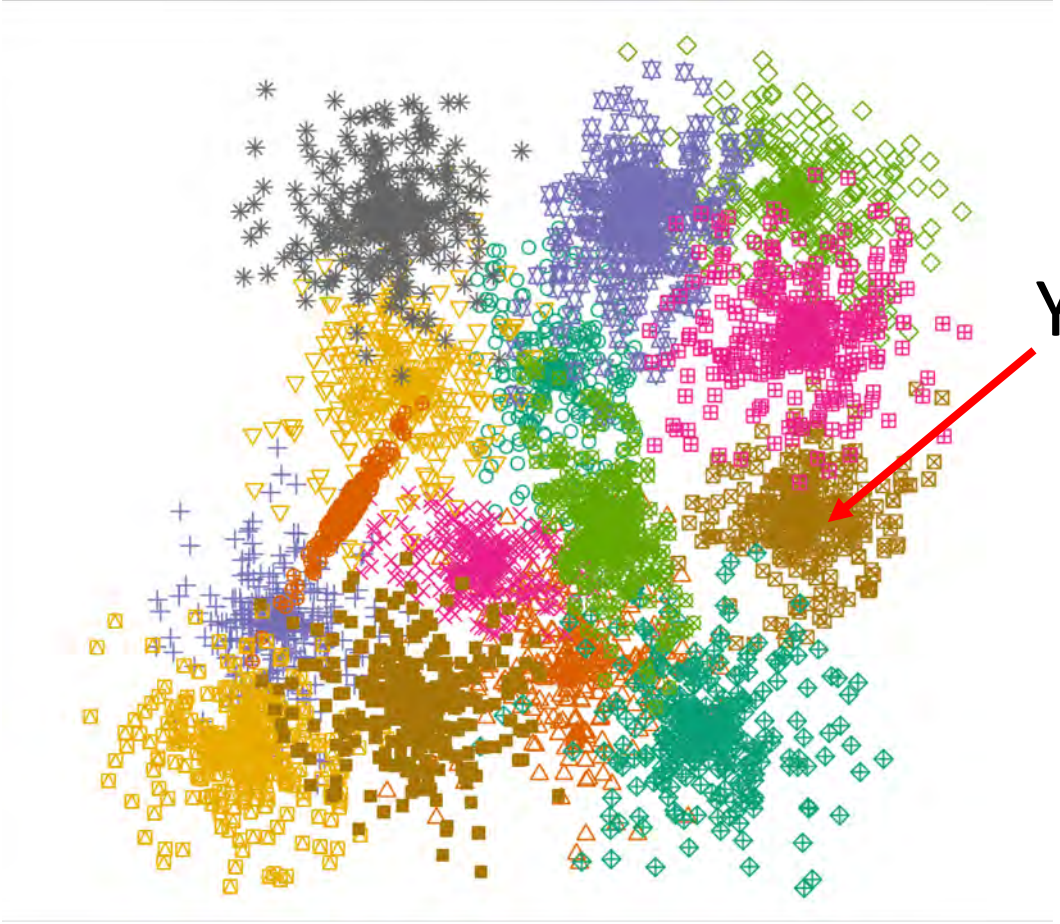

News about climate change
News about excessive regulation of business
Algorithm: what are you likely to want to hear?
right-leaning Republican pro-business filter bubble
left-leaning Democratic pro-environment filter bubble
Image Credit: Wikipedia

Image Credit: Quartz

(Technologies such as social media) lets you go off with like-minded people, so you're not ***mixing and sharing and understanding other points of view*** *... It's super important. It's turned out to be more of a problem than I, or many others, would have expected.*

- Bill Gates (2017

What if …



You belong here.

All the people in US

Overview of opinions

removes difference

Overview of opinions

~~removes difference~~

acknowledge difference

PYCON KOREA 2018

2017/8년 이후 주요 언론사

- 주요 언론사 46개:
  - 종합 / 방송통신 / 경제 / 인터넷 / IT전문지
- 2017년 1월 1일 ~ 2018년 7월 29일
- 전체 기사 수: 2,780,621개 (댓글 없는 기사는 제외)
- 전체 댓글 수: 49,574,824개 (약 5천만개)
- 한 기사 댓글 평균적으로 17.8개

PYCON KOREA 2018

우리가 "이상하다"고 느끼는 댓글 종류

- 똑같은 말을 반복하는 댓글
- 기사 내용과 무관한 내용의 댓글
- 정치/사회적인 성향이 짙은 댓글
- 사실관계가 어긋난 댓글
- 욕설 등 비속어가 많은 댓글
- 말 자체가 안되는 글자 댓글 등등

PYCON KOREA 2018

한 아이디가 똑같은 댓글을 도배하나?

PYCON KOREA 2018

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- 같은 내용의 댓글 + 같은 아이디 + 여러번(수십~수백번)

PYCON KOREA 2018

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s_contents	userIdNo	comments	articles
단말기 가격으로 사기치고 요금제로 뒤통수 치고 약정으로 노예만들고 위약금으로 불합리한 빚더미에 눌러 앉히면서 여전히 해쳐먹고 있지 1 약정 결합 위약 족쇄 관행 철폐 2 이통사에서 단말기 유통에 일절 관여치 못하도록 차단 회선서비스 시장과 단말기 유통시장 원천 분리 완전자급제 3 그동안 보조금 할인 명목 미끼로 소비자들 눈가리고 속여오며 폭리나 다름없이 치솟아온 요금제 출고가 대폭 인하를 통한 요금 단말기가격 정상화 이상 반드시 해야할 세가지를 실현하지 않는다면 뭘하건 소비자 입장에서는 무의미함	22l8g	1324	1323
법의 사각지대에서 마녀사냥으로 고통받는 조직스토킹 피해자 여러분 우리가 계속 자살만 택한다면 이 자살교사범죄는 계속 완전범죄로 묻히게 됩니다 사람하나 자살시키기 쉽지 않다는 걸 보여줘야할 의무가 있습니다 자살안하는게 복수입니다 미국에는 있지만 한국엔 없는 전파무기 금지법이 생길 때까지 힘내세요 전파무기와 조직스토킹으로 약자를 괴롭히고도 벌 안받고 잘 사는 인간들은 죽은 후를 두려워해야 할 것이다	96g2b	658	656
연합뉴스 기상캐스터는 사랑입니다	2LEhN	370	369
전라도	3mZQ0	324	324
이사야 44장 6절 이스라엘의 왕인 여호와 이스라엘의 구원자인 만군의 여호와가 이같이 말하노라 나는 처음이요 나는 마지막이라 나 외에 다른 신이 없느니라 요한복음 14장 6절 예수께서 이르시되 내가 곧 길이요 진리요 생명이니 나로 말미암지 않고는 아버지께로 올 자가 없느니라 행 4장 12절 다른 이로써는 구원을 받을 수 없나니 천하사람 중에 구	3hObp	299	299

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- 어떤 사람은 통신 요금에 대한 성토를 1323개의 기사에 1324번 작성

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우리가족은 삼성제품 안써요	7pXZ	293	292
이사야 44장 6절 이스라엘의 왕인 여호와 이스라엘의 구원자인 만군의 여호와가 이같이 말하노라 나는 처음이요 나는 마지막이라 나 외에 다른 신이 없느니라 요한복음 14장 6절 예수께서 이르시되 내가 곧 길이요 진리요 생명이니 나로 말미암지 않고는 아버지께로 올 자가 없느니라 행 4장 12절 다른 이로써는 구원을 받을 수 없나니 천하사람 중에 구원을 받을 만한 다른 이름을 우리에게 주신 일이 없음이라 하였더라 살아계신 하나님의 진리의 말씀 입니다	agSyF	293	293

PYCON KOREA 2018

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완전히 같은 댓글, 다른 두 계정

PYCON KOREA 2018

완전 똑같은 댓글을
여러 계정이 쓰고있어요!

PYCON KOREA 2018

대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있다 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	1Lpc7	90
대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있다 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8ozmQ	86
대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있다 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8662f790-6c04-11e5-a846-00000000041f	79
대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있다 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8qyMW	60
대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있다 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	e51a30a0-06cd-11e6-9921-000000007370	65
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대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있어서 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 강력히 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8ozmQ	46
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대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있어서 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8662f790-6c04-11e5-a846-	40

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내란집단 최순실 태블릿 조작 에 이어 세월호 7시간 박근혜 대통령 성형시술 동영상 도 조작 시술부위 동영상을 조작하기 위해 는 2 그래픽 3 입체영상 소프트웨어 총동원 태블릿조작 동영상 인터넷 검색창에 0 8 복사 붙여넣기 해서 볼 것 성형부위조작동영상 인터넷 검색창에 7 복사붙여 넣기 해서 볼 것	5Czpy	75
내란집단 최순실 태블릿 조작 에 이어 세월호 7시간 박근혜 대통령 성형시술 동영상 도 조작 시술부위 동영상을 조작하기 위해 는 2 그래픽 3 입체영상 소프트웨어 총동원 태블릿조작 동영상 인터넷 검색창에 0 8 복사 붙여넣기 해서 볼 것 성형부위조작동영상 인터넷 검색창에 7 복사붙여 넣기 해서 볼 것	8TFSq	60
내란집단 최순실 태블릿 조작 에 이어 세월호 7시간 박근혜 대통령 성형시술 동영상 도 조작 시술부위 동영상을 조작하기 위해 는 2 그래픽 3 입체영상 소프트웨어 총동원 태블릿조작 동영상 인터넷 검색창에 0 8 복사 붙여넣기 해서 볼 것 성형부위조작동영상 인터넷 검색창에 7 복사붙여 넣기 해서 볼 것	KZjw	46
내란집단 최순실 태블릿 조작 에 이어 세월호 7시간 박근혜 대통령 성형시술 동영상 도 조작 시술부위 동영상을 조작하기 위해 는 2 그래픽 3 입체영상 소프트웨어 총동원 태블릿조작 동영상 인터넷 검색창에 0 8 복사 붙여넣기 해서 볼 것 성형부위조작동영상 인터넷 검색창에 7 복사붙여 넣기 해서 볼 것	4Ma9q	64
신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자		
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대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있다 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8Jz2a	89
대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있어서 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 강력히 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8ozmQ	46
대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있어서 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 강력히 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8qyMW	43
대한민국의 새로운 신 권력 언론 금융 공공 노조 대한민국의 주권은 국민에게 있고 대한민국의 권력은 신 권력이 행사한다 지금의 탄핵은 이들 신 권력이 주도하고 있어서 2 3 여 년 전부터 이들 신 권력 때문에 국회는 식물 국회가 되어 한 일이 없고 대통령은 탄핵 상태로 직무가 정지되고 정부는 일을 할 수가 없다 피해자는 오로지 국민이다 언론과 금융과 공공과 노동을 개혁하자 그래서 국민의 주권을 바로 세우고 국회와 정부가 제대로 일하도록 국정을 쇄신하자	8662f790-6c04-11e5-a846-	40

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내란집단 최순실 태블릿 조작 에 이어 세월호 7시간 박근혜 대통령 성형시술 동영상 도 조작 시술부위 동영상을 조작하기 위해 는 2 그래픽 3 입체영상 소프트웨어 총동원 태블릿조작 동영상 인터넷 검색창에 0 8 복사 붙여넣기 해서 볼 것 성형부위조작동영상 인터넷 검색창에 7 복사붙여 넣기 해서 볼 것	5Czpy	75
근혜비리 증거는 순실이다 근혜와 일당 당장 체포해 엄벌처해라 국가와 국민이 더 이상 피해 볼수없 다 모든공직자는 비리와 직무유기시 시민공개재판해 재산몰수와 사형시켜라 법계 검찰 무용지 물임 나라가 이렇게 썩은이유는 모든 공직자 임기보장때문 모든공직자임기 1년으로하고 비리없 고 유능한자만 재임용해 다른취업대기자 균등한 취업기회와 더 유능한자로 물갈이 되야됨 박대통 령이 누리는 모든 혜택 당장 지급 중단하고 특검부를 신설해 항시 모든 공직자비리 감시와 또 대 통령후보 1차 특검해 결격사유자 미리 탈락시켜야 국가적 대재앙 줄임	Lgbh	57
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다른 아이디가 똑같은 댓글들을 반복해 달까?

- 같은 댓글을 + 3개 이상의 계정이 + 계정당 100번 이상 단 경우

s_contents	comments	accounts	userIdNoSet	commentPerAcc
단말기가격으로사기치고요금제로뒤통수치고약정으로노예만들고위약금으로불합리한빚더미에눌러앉히면서여전히해처먹고있지약정결합위약즉새관행질페이통사에서단말기유통에일절관여치못하도록치단회선서비스시장과단말기유통시장원천분리완전자급제	4088	6	["1KhhJ","1oYds","5EuK5","95SBq","22I8g","3IKJ	681.3333333333334
법위에재벌공화국삼성공화국재벌들이소유지배하는대한민국방송국경제지언론기자등삼성장충기문자는빙산의일각이건희인륵별사면등이건희성매매활영한사람징역년개월받음이재용심억원뇌물인정나이지밀부유죄받았는데집행유예받음재벌삼성법원	1244	4	["1RrhK","5Sg63","4kobb","9NM8Y"]	311
유병언조희팔못잡나안잡나	857	3	["3XObd","3v4bC","2jbJX"]	285.6666666666667
문죄앙을탄핵해야할행위박대통령의구속연장은죄앙이사법부에압박을가한사법방해및정치보복행위권력에맛을알고검찰과쫄따구들을미친개로만들어살인정권을하려는행위언론을장악하여국민을개돼지로만들려는행위새월호의아픔을이용하여울궈먹는행위권앙	841	3	["331b8190-20f0-11e7-a463-000000003c7c","3tq	280.3333333333333
중국공산당은지금도무고한자국민들주로파룬궁수련자수백만명을산채로장기적출해외국에게팔아먹는야만정권임캐나다미국공동조사뉴욕타임스등보도북한이나중국이나공산당의본성은영원히변하지않음중국공산당의본성은원공산당탈조	1089	4	["3p8Fb","5HXYI","5Bcnl","Sx9f"]	272.25
이사야장절이스라엘의왕인여호와이스라엘의구원자인만군의여호와가이같이말하노라나는처음이요나는마지막이라나외에다른신이없느니라요한복음장절예수께서이르시되내가곧길이요진리요생명이니나로말미암지않고는아버지께로올자가없느니라행장절다른	1547	6	["ahabj","agQfW","1i9pZ","3hObp","2KUF5","agS	257.8333333333333
박근혜대통령의명예를회복하자박근혜대통령은돈을한푼도받은것이없다돈은최순실삼성가다가지고있다박근혜대통령이가진것은맹전인데도촛불과노조와언론들이증거를조작하고선동을하고위세를부려죄없는대통령을구속하고정권을탈취한강도짓은촛불과노조	1379	6	["1Lpc7","8662f790-6c04-11e5-a846-0000000004	229.8333333333334
에스에이엠티차산업혁명으로반도체빅사이클시작최대수혜주삼전하이닉스주가찰조거기다가사물인터넷자율주행전기차웨어러블등반도체수요가폭발적인성장을하게된다년매출조순익은억시총억인당순익억으로상장사전체위반도체부품개발부터양산까지토탈솔	1653	8	["69vsF","6fCF","4awyb","7Hzsu","7H43Y","34rJa	206.625
특히이번박근혜대통령의탄핵을계기로국정을쇄신해서국방을강화하고선진화해서국민의생명과안전을지키고노동을강력하게개혁해서노동에서의불평등을없애며임금과이자와부동산및식품을비롯한생필품의물가를잡고환율을내려서민경제를살리고중소기업을살	1173	6	["1Lpc7","8662f790-6c04-11e5-a846-0000000004	195.5
박근혜대통령의명예를회복하자박근혜대통령은돈을한푼도받은것이없다최순실이가사기친돈은삼성롯데가다가지고있다박근혜대통령이가진것은맹전인데도촛불과노조와언론들이증거를조작하고선동을하고위세를부려죄없는대통령을구속하고정권을탈취한강도	1320	7	["1Lpc7","8662f790-6c04-11e5-a846-0000000004	188.57142857142858
우주의원리를모르면올바른가치도알수없다그러므로과학이결여된철학은모두개똥철학이다사회와종교를포함해서우주의모든현상을하나의이론으로명쾌하게설명하는책제목과학의재발견이나왔다서울대교수들이새이론에반론도못하면서반대로찬성도못하고있다	748	4	["34DVm","Xlpo","7FneP","4HZj4"]	187
삼성롯데가문화와스포츠육성을위해서낸돈은문화재단과스포츠재단에다있다문화체육관광부에물어봐라도종환문체부장관에게직접확인해봐라문화예술인과체육인을돕겠다는박근혜대통령의뜻이잘못된것이냐재단을만든것이무슨나쁜일이냐별의별핑계를대서박	1061	6	["1Lpc7","8662f790-6c04-11e5-a846-0000000004	176.8333333333334
중국공산당은지금도무고한자국민들주로파룬궁수련자수백만명을산채로장기적출해외국에게팔아먹는야만정권임캐나다미국공동조사뉴욕타임스등보도북한이나중국이나공산당의본성은영원히변하지않음	692	4	["3p8Fb","5HXYI","5Bcnl","Sx9f"]	173
짭새수사권반대이전에장애자한테삼해당해서용임시의용밍짭새서에신고했다직접보복만하고적법하게짭새한테신고하면적법하게처리될줄알고짭새가부른날에짭새서에갔다갔더니장애자대학친구들이떼거지로미리와있다짭새와장애자친구들이나한테떼거지로욕	493	3	["6h1oM","2z46B","5EzNX"]	164.3333333333334
삼성롯데가문화와스포츠육성을위해서낸돈은문화재단과스포츠재단에다있다문화체육관광부에물어봐라도종환문체부장관에게직접확인해봐라문화예술인과체육인을돕겠다는박근혜대통령의뜻이잘못된것이냐재단을만든것이무슨나쁜일이냐별의별핑계를대서박	1141	7	["2B3kz","1Lpc7","8662f790-6c04-11e5-a846-000	163
박근혜대통령의명예를회복하자박근혜대통령은돈을한푼도받은것이없다돈은최순실삼성가다가지고있다박근혜대통령이가진것은맹전인데도촛불과언론들이증거를조작하고선동을하고위세를부려서죄없는대통령을구속하고정권을탈취한강도짓은촛불과언론들이	975	6	["1Lpc7","8662f790-6c04-11e5-a846-0000000004	162.5
역시최고의대통령문재인	486	3	["8OkCv","u1aY","20ABz"]	162
영종편한세상회사보유분특별분양단지내초등학교초품아영종도내최저가평당만원대영종도내최고위치선착순대표번호	469	3	["44MTa","a8laH","a8jXM"]	156.3333333333334
북죄인긴급조치위반행위생쇼를해서과거에자기의죄를덮어국민을개돼지로알고설치는행위권력에맛을알고권력의칼을휘둘러국민을협박하는행위박대통령을깔아뭉개고마녀로만들면서죄인은정의에사도처럼착각하는행위사드를가지고한미동맹을악화시키는행위	443	3	["331b8190-20f0-11e7-a463-000000003c7c","3tq	147.6666666666666
죄악과난리가극심해지는이시대에구원의길은오직예수그리스도입니다회개하십시오각자행한대로갚으시는주님의심판이가깝습니다예수만이인생의진리입니다오직예수를구주로믿고영접하여앞으로있을영원한천국을누리십시오	431	3	["e40294e0-62d5-11e7-bdd6-000000007bb0","5b	143.6666666666666
지금부터행동한다애국동지여박대통령을거짓과선동으로억지누명탄핵하면서구속까지주도하고정권찬탈에놀아난문빨일당들그들이똥통이되었으니역사상가장비참한최후를맞을것이고종북좌빨촛불좀비들의판관들은공범자고쓰레기들이어허무빨리청소한다음에	426	3	["331b8190-20f0-11e7-a463-000000003c7c","3tq	142
공무원들이재단설립이나기부금품모집등에관여하지못하도록법으로금지하자년아시안게임년하계올림픽년여수엑스포그리고매년열리는지방축제와국가지원의재단이나지역의재단설립등은공무원들이참여해서기업들로부터기부금등을받아설립하고운영해왔고이	984	7	["1Lpc7","8662f790-6c04-11e5-a846-0000000004	140.57142857142858
이제는거짓된촛불좀비의정권찬탈과문제가많은죄인과쫄따구들을제압할수유일한방법은박대통령을석방시키기위한온라인만서명운동에참여하여진실된대한민국을지키는데태극기우공화혁명에나서야할때가되었습니다그리고후손을위한타도세력들문빨일당들무	398	3	["331b8190-20f0-11e7-a463-000000003c7c","3tq	132.6666666666666
우리가족은삼성제품안써요	984	8	["2JRtq","1LGaz","2Y7SJ","24Tlz","3b1Os","6YLE	123

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여러 계정이 같은 댓글. 얼마나?

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- Q. 이상한 계정들은 얼마나 많나요?

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많나요?
  - 댓글 단 전체 계정 수 : 2,655,384 계정

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많나요?
  - 댓글 단 전체 계정 수 : 2,655,384 계정
  - 10개 이상의 같은 댓글/기사로 필터링 : 7463 계정(0.28%)

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- Q. 이상한 계정들은 얼마나 많나요?
  - 댓글 단 전체 계정 수 : 2,655,384 계정
  - 10개 이상의 같은 댓글/기사로 필터링 : 7463 계정(0.28%)
  - 40개 이상의 같은 댓글/기사로 필터링 : 763 계정(0.02%)

PYCON KOREA 2018

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- Q. 이상한 계정들은 얼마나 많나요?
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  - 40개 이상의 같은 댓글/기사로 필터링 : 763 계정(0.02%)
- Q. 이상한 계정들이 쓴 댓글은 얼마나 많나요?

PYCON KOREA 2018

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- Q. 이상한 계정들은 얼마나 많나요?
  - 댓글 단 전체 계정 수 : 2,655,384 계정
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- Q. 이상한 계정들이 쓴 댓글은 얼마나 많나요?
  - 10번 이상: 2,617,004 개 (5.28%) - 계정당 350개

PYCON KOREA 2018

여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많나요?
  - 댓글 단 전체 계정 수 : 2,655,384 계정
  - 10개 이상의 같은 댓글/기사로 필터링 : 7463 계정(0.28%)
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- Q. 이상한 계정들이 쓴 댓글은 얼마나 많나요?
  - 10번 이상: 2,617,004 개 (5.28%) - 계정당 350개
  - 40번 이상: 565,253 개 (1.14%) - 계정당 741개

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여러 계정이 같은 댓글. 얼마나?

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많은 같은 내용의 댓글을 쓰나요?

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많은 같은 내용의 댓글을 쓰나요?
  - 전체 데이터셋의 계정, 평균 17.8개:

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많은 같은 내용의 댓글을 쓰나요?
  - 전체 데이터셋의 계정, 평균 17.8개:
    - 25%: 1개 | 50%(중간값): 3개 | 75%: 12개

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많은 같은 내용의 댓글을 쓰나요?
  - 전체 데이터셋의 계정, 평균 17.8개:
    - 25%: 1개 | 50%(중간값): 3개 | 75%: 12개
  - 10번 이상 빈도로 탐지된 계정, 평균 350개:

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많은 같은 내용의 댓글을 쓰나요?
  - 전체 데이터셋의 계정, 평균 17.8개:
    - 25%: 1개 | 50%(중간값): 3개 | 75%: 12개
  - 10번 이상 빈도로 탐지된 계정, 평균 350개:
    - 25%: 70개 | 50%(중간값): 199개 | 75%: 853개

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많은 같은 내용의 댓글을 쓰나요?
  - 전체 데이터셋의 계정, 평균 17.8개:
    - 25%: 1개 | 50%(중간값): 3개 | 75%: 12개
  - 10번 이상 빈도로 탐지된 계정, 평균 350개:
    - 25%: 70개 | 50%(중간값): 199개 | 75%: 853개
  - 40번 이상 빈도로 탐지된 계정, 평균 740개:

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여러 계정이 같은 댓글. 얼마나?

- Q. 이상한 계정들은 얼마나 많은 같은 내용의 댓글을 쓰나요?
  - 전체 데이터셋의 계정, 평균 17.8개:
    - 25%: 1개 | 50%(중간값): 3개 | 75%: 12개
  - 10번 이상 빈도로 탐지된 계정, 평균 350개:
    - 25%: 70개 | 50%(중간값): 199개 | 75%: 853개
  - 40번 이상 빈도로 탐지된 계정, 평균 740개:
    - 25%: 202개 | 50%(중간값): 550개 | 75%: 1150개

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매일 댓글을 쓰는 사람?

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매일같이 댓글 쓰는 사람?

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매일같이 댓글 쓰는 사람?

- N 포탈 뉴스 댓글: 계정당 하루에 20개

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매일같이 댓글 쓰는 사람?

- N 포탈 뉴스 댓글: 계정당 하루에 20개
- 위 제한선에 가깝게 매일같이 댓글을 쓰는 계정이 있을까?

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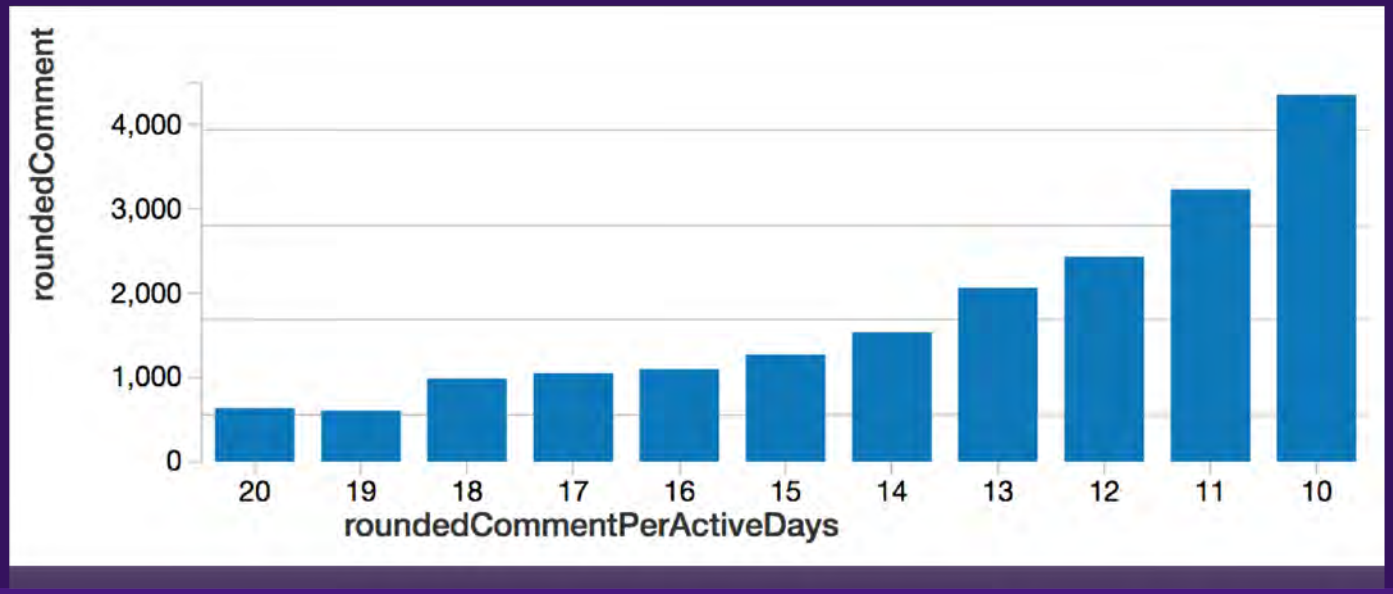
매일같이 댓글 쓰는 사람?

- N 포탈 뉴스 댓글: 계정당 하루에 20개
- 위 제한선에 가깝게 매일같이 댓글을 쓰는 계정이 있을까?
-



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매일같이 댓글 쓰는 사람?

- 매일 10개 이상 댓글을 단 사람

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매일 올리는 댓글은 어떤 댓글일까?

- 매일 비슷비슷한 댓글, 그러나 내용이 조금씩 바뀐다.

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매일 올리는 댓글은 어떤 댓글일까?

- 매일 비슷비슷한 댓글, 그러나 내용이 조금씩 바뀐다.

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9rlYi	111	2005	▾ array 0: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 1: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 2: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 3: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 4: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 5: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 6: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 7: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 8: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349 9: 청원부탁드립니다. 악플러들과 함께 네이버 댓글 매크로 돌리는 공범인가요? 요즘 문재인대통령 인신공격, 비하댓글들로 보기에도 민망한 무지막지한 욕설과 고소할만한 수준의 댓글이 비정상적으로 높은추천과 베스트댓글로 올라가있고 사건사고 기사에도 도배되어가고있어요!!캡쳐하고있구요! 수시로 기사 갈아치우며 댓글관리,악성댓글을 방치하는!어린학생들에게도 무방비하게 노출시켜주는 네이버도 공범입니다.삼습적인 악성댓글,악플러 고발도 해야할것입니다. 국민청원 포털사이트 https://www1.president.go.kr/petitions/101349

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