Connecting the comedy dots:
Interview content, elaborative processing, and political satire programming

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Background

- Political satire interviews an important part of cultural landscape

- Limited understanding of the balance between intellectual vs. entertainment-oriented content

- Study of interview content is divorced from a study of effects

Previous Research on Political Satire Interviews

- Satire interviews are *hybrid media* that mixes in-depth discussion of public affairs with celebrity chat (Baym, 2007)
  - Interviews are information-rich and conversational (Baym, 2010)
- Viewing comedy interviews can:
  - Result in higher recall of basic facts and an increased likelihood to participate politically (Becker, 2013)
  - Lead viewers to evaluate the interviewee more positively and perceive less bias in satire vs. news interviews (Hoffman, 2013)
  - Lead to a bump in candidate fundraising (Fowler, 2008)

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Key Research Questions: Content

- Can we assess patterns in guest occupations to determine the balance of intellectual vs. entertainment-oriented conversations on political satire?

  - Have the conversations on these programs evolved over time?

  - Which program is more *intellectual – TDS* or *TCR?*

- Methodology: Can automated coding techniques from computer science enhance the manual effort that is standard in communication research?

Effects: Viewing Motivations & Elaborative Processing

- Focus on elaborative processing:
  - *"Elaboration is the process of connecting new information to other information stored in memory, including prior knowledge, personal experience, or the connection of two new bits of information together in new ways"* (Eveland Jr., 2001, p. 573)

- Do comedy viewing motivations influence the processing of interview content?
  - Previous research suggests that viewing motivations [(e.g., classifying comedy as news vs. entertainment, the need for humor (NFH), and the need for cognition (NFC)] shape key behavioral outcomes (Feldman, 2013; Matthes, 2013; Young 2013)

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Hypotheses

News Content Affinity

H1: NCA ➕ Elaborative Processing

H1a: NCA ✖ ➕ Elaborative Processing

Perceived Learning

H2: Learning ➕ Elaborative Processing

H2a: Learning ✖ ➕ Elaborative Processing

Data and Methods: Content

- *N* = 3,507 interview appearances on *TDS* & *TCR* between 2003-2014
  - Database assembled by scraping content from DBpedia
  - Analyzed occupations of guests making appearances from 2003-2013 first; 2014 followed as second step
- Multiple coding methods
  - Automatically code guests into categories using keywords within DBpedia fields
  - Semi-supervised learning (Naïve Bayes classifier to code remaining appearances based on prior learnings)
  - "Old-school" manual category coding

Guest Category Occupation Classification Scheme

Category Number	Category Label	Keywords
1	Academic	academic, PhD, Dr., scientist, university, institute, historian
2	Actor	Actor, actress, director, filmmaker, screenwriter, artist, entertainer, entertainment
3	Athlete	Athlete, sports, football, soccer, baseball, basketball, tennis, hockey, Olympic, Olympics
4	Business	Business, businessman, CEO, IPO, stock
5	Clergy	Clergyman, reverend, bishop, pope, pastor, rabbi
6	Comedian	Comedian, comic
7	Journalist	Journalist, news, news media, correspondent, commentator, host, moderator, CNN, FOX, NBC, ABC, CBS, MSNBC, post, times, tribune, magazine, newspaper
8	Musician	Singer, song, songwriter, band, performer, guitar, piano
9	Policy	Policy, lobby, lobbyist, NGO, advocate, advocacy, organization, consultant, activist
10	Politician	Politician, judge, mayor, congressman, senator, elected, governor, representative, congresswoman, secretary, candidate, prime, lady, president
11	Writer	Writer, poet, author, novel, novelist

Coding Accuracy

	2003-2013 (n = 3,201)	2014 (n = 306)	2003-2014 (n = 3,507)
Automated coding (heuristics)	89.3%	88.3%	89.2%
Semi-supervised learning (classifier)	44.7% (vs.14.3%)	56.1% (vs.17.7%)	46.9% (vs. 14.5%)
Combined methods	75.8%	81.4%	76.7%
Fully-supervised classifier (2003-2013 data)		77.8%	
Combined methods + 2003-2013 classifier		82.7%	

Guest Category Occupations by Show (2003-2014)
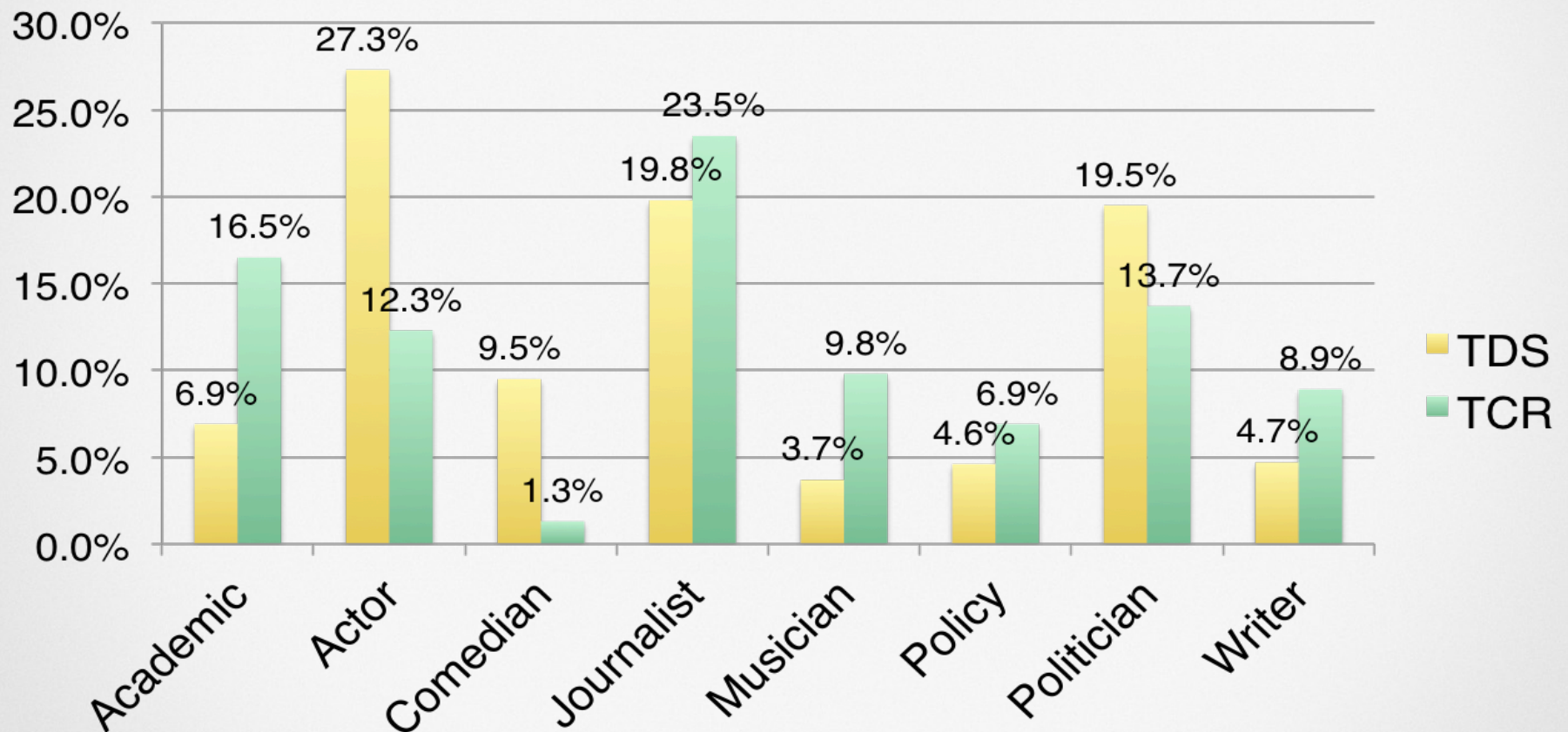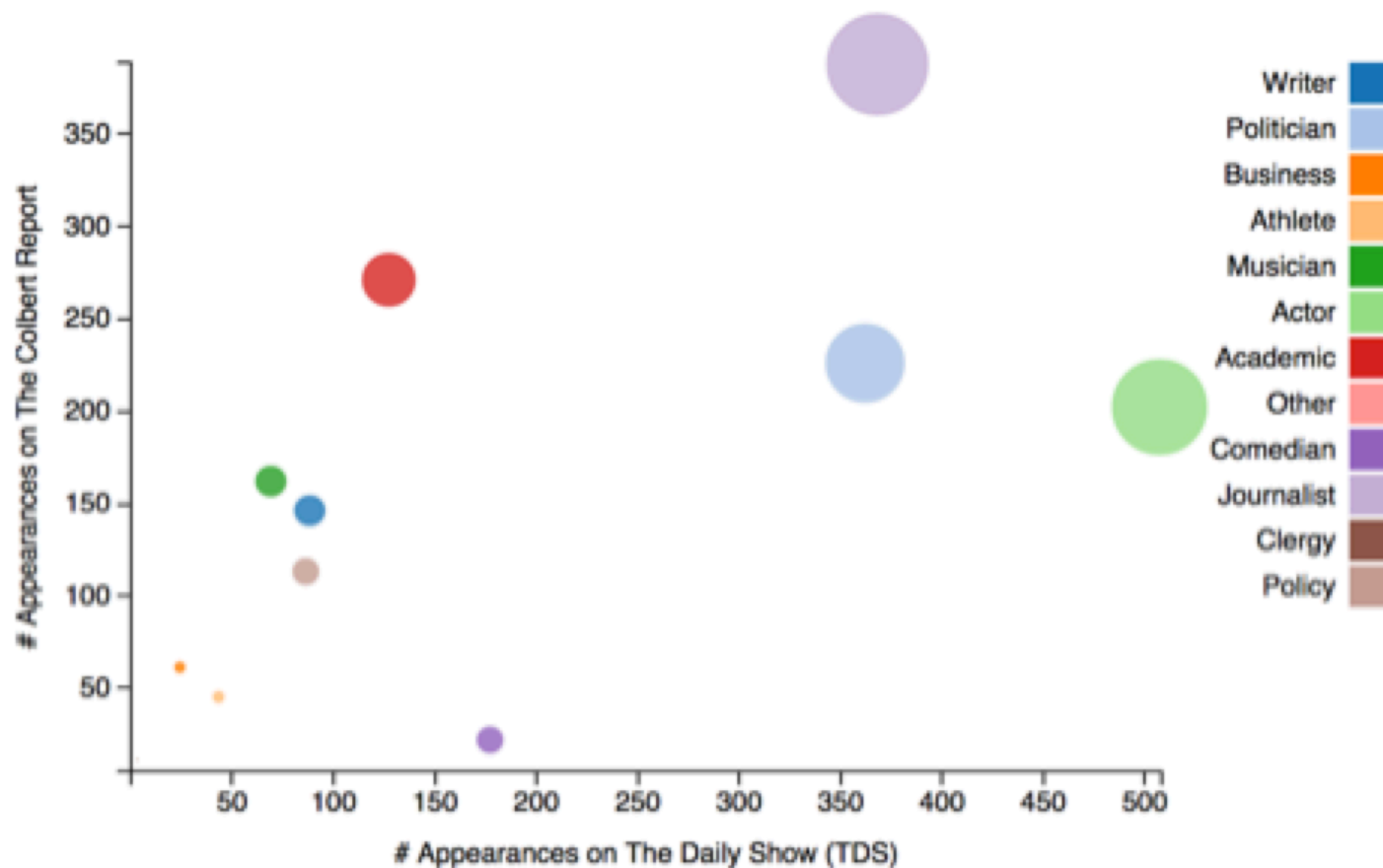
Intellectual Guest Appearances 2003-2014

Table 2. Percentage of Intellectual Guests by Category Appearing on *The Daily Show* and *The Colbert Report* 2003-2014

	2003	2004	2005	2006		2007		2008		2009	
	TDS	TDS	TDS	TDS	TCR	TDS	TCR	TDS	TCR	TDS	TCR
academic	1.9	1.9	9.5	6.5	15.8	8.1	22.4	7.2	15.5	10.7	20.0
journalist	14.8	19.4	24.7	19.5	34.2	13.5	23.7	34.2	22.4	23.3	30.8
policy	4.3	5.6	3.2	5.8	8.9	8.1	7.7	5.3	9.5	3.1	5.1
politician	9.9	24.4	15.8	19.5	13.3	29.1	17.3	21.7	19.0	23.9	12.8
writer	3.7	3.1	5.1	5.8	5.7	5.4	10.9	5.3	9.9	5.7	7.7
Total	34.6	54.4	58.3	57.1	77.9	64.2	82.0	73.7	76.3	66.7	76.4

	2010		2011		2012		2013		2014	
	TDS	TCR	TDS	TCR	TDS	TCR	TDS	TCR	TDS	TCR
academic	8.4	14.9	9.3	18.0	9.6	17.4	5.1	14.6	4.2	11.0
journalist	14.3	23.1	20.5	15.9	16.6	20.6	17.2	19.2	20.3	16.0
policy	3.9	8.1	2.6	11.1	5.7	4.5	6.4	3.3	1.4	2.5
politician	18.8	13.6	19.9	12.2	24.2	12.9	11.5	7.9	16.1	12.3
writer	7.8	10.4	4.0	7.4	3.8	5.8	4.5	10.6	2.8	9.8
Total	53.2	70.1	56.3	64.6	59.9	61.2	44.7	55.6	44.8	51.64

Frequent Guests by Category Type

Scatter plot with "# Appearances on The Colbert Report" on the vertical axis (0 to 350) and "# Appearances on The Daily Show (TDS)" on the horizontal axis (0 to 500).

Legend:
- Writer
- Politician
- Business
- Athlete
- Musician
- Actor
- Academic
- Other
- Comedian
- Journalist
- Clergy
- Policy

Guest Appearing With Greatest Frequency

Table 3. Frequent Interview Guests

Guest	Category	Appearances on TDS	Appearances on TCR	Total
Fareed Zakaria	Journalist	17	2	19
Brian Williams	Journalist	16	0	16
Tom Brokaw	Journalist	10	6	16
Mike Huckabee	Politician	8	7	15
Neil deGrasse Tyson	Academic	7	8	15
Reza Aslan	Writer	9	3	12
Ricky Gervais	Comedian	13	0	13
Bill Kristol	Journalist	10	1	11
Denis Leary	Comedian	12	0	12
Will Ferrell	Comedian	11	0	11
Bill Clinton	Politician	9	2	11
Doris Kearns Goodwin	Academic	6	5	11
Paul Rudd	Actor	10	1	11
Arianna Huffington	Journalist	5	5	10

Data and Methods: Effects

- Experiment conducted among US undergraduates
  - $N = 265$; March 26 – April 13, 2012
- Randomly assigned to 1 of 5 video conditions (all 6-8 minute book promo interviews):
1. Gov. Jennifer Granholm on *TDS* ($n = 53$)
2. Granholm on *MSNBC* w/ Olbermann ($n = 54$)
3. Gov. Mitch Daniels on *TDS* ($n = 41$)
4. Daniels on *FOX News* w/ van Susteren ($n = 38$)
5. Granholm on *TCR* ($n = 36$)

Effects: Key Measures

- Elaborative Processing ($M = 3.41$, $SD = 1.65$; 7-pt agree; $r = .70$, $p < .001$)
  - "I often thought about how what I saw in the video relates to other things I know,"
  - "I often made connections between what I saw in the video and things I've learned about elsewhere,"
- Comedy Learning ($M = 2.15$, $SD = 1.03$; 1 = "never," to 4 = "regularly,")
  - "How often do you learn something about politics and public affairs from TDS or TCR?"
- News Content Affinity ($M = 2.82$, $SD = .36$; 1 = "does not matter," 2 = "dislike," 3 = "like;" $r = .36$, $p < .001$)
  - "When a news source is sometimes funny," (83% like)
  - "When a news source makes the news enjoyable and entertaining," (86% like)

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OLS Regression: Elaborative Processing

	Model 1	Model 2
Block 1: Direct Effects		
Female	-.00	.00
Age	.24***	.23***
Democrat	.11	.10
Ideology (conservative = high)	.09	.10
Political Interest	.23***	.25***
News Content Affinity	.10#	.11#
Cable Learning	.16*	.15*
Comedy Interview Condition	.12*	.12#
Incremental R^2	20.3%	
Block 2: Interactions		
NCA*Comedy		.14*
Learn*Comedy		.06
Incremental R^2		2.1%
Final R^2		22.4%

- Learning ➕ Elaborative Processing (H2 supported)

- NCA ✖️ ➕ Elaborative Processing (H1a supported)

- Indication of trend towards H1 (affinity may matter for processing)

Note 1: $N = 221$
Note 2: = Cell entries for block 1 are final standardized regression coefficients; cell entries for block 2 are before-entry standardized regression coefficients.
Note 3: $^\# p < .10$ $*p < .05$. $**p < .01$. $***p < .001$.

Conclusions

- *TDS* and *TCR* are more than *entertaining fake news programs*
  - Highly intellectual endeavors that have influenced political culture and television journalism
  - Ultimately, political satire may be making us smarter
- Viewing motivations influence the processing of comedy content
  - Those who think they learn from comedy were more likely to make connections with the interview and other content
  - Preference for entertaining news moderates the impact of comedy exposure on elaborative processing

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Contributions

- Illustrates the value of integrating automated coding methods from computer science with "old-school" manual coding from communication research
  - High level of accuracy with a lot less manual time and effort
- Importance of considering alternative data sources like DBpedia
- Ultimately brings us closer to understanding satire's content and impact by mixing methodologies and datasets

Future Research

- As political comedy landscape changes, it will be important to track the future of this hybrid media exchange and its intellectual impact
    - With Colbert shifting to *CBS* and Jon Stewart leaving *TDS*, where will we find these hybrid media conversations?
    - What about other formats like discussion panels?

- Moving forward, comedy effects research should pair a study of viewing motivations with both processing variables and behavioral outcomes like knowledge or participation

Thank you!

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