Issues, Media and Momentum in the 2008 Primary: Automated Retrieval of Dynamic Content

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Research Questions
- How does media coverage of issues change over the primary campaign?
- To what extent is the coverage related to key campaign events?

Summary
- Explore issue salience in the 2008 presidential primary campaign
- Expose dynamic nature of the media's issue coverage as it pertains to both the invisible primary period and the early primary
- Generate smooth summary measures of the dynamics with Bayesian state space models
- Find that particular issues dominate the campaigns at the start and finish, but that there are also changes in the relative salience of issues throughout the campaign
- Showcasing data collection and potential use
- Just the first few of several steps toward understanding the dynamic relationship of media issue coverage to indicators of candidate status in the 2008 primary

Larger Project
- Original longitudinal dataset culled from newspaper articles
- Use Perl to automatically retrieve and code articles
- Sample national and local newspapers
- Test the dynamic mechanisms of primaries
- Evaluate roles of media, polls, contributions and candidate visits
- Project with Corwin D. Smidt: http://VisiblePrimary.com

Dynamic Issue Content
- Counting number of sentences per day with a salient issue in national newspapers
- Timeline: July 9, 2007 to February 5, 2008
- 4,184 articles mentioning an issue
- 151,702 issue sentences

Bayesian State Space Model
State equation:
\[ \text{Issues} = \theta_t + \text{Days}_t + \text{FEC}_t + \epsilon_t \quad \text{where} \quad \epsilon \sim N(0, \sigma^2) \]
Transition equation:
\[ \theta_t = \theta_{t-1} + \nu_t \quad \text{where} \quad \nu \sim N(0, \sigma^\nu) \]
Bayesian State Space Model:
- Forward filtering backward sampling algorithm
- Inverse-Wishart priors for residuals
- Normal diffuse priors for regressors

Aggregate Filtered Series

Conclusions
- Both horse-race & issue coverage increase over the 2008 Primary
- Defense dominates traditional Rep issues
- Healthcare strongest among Dem issues
- Economy important but not the leading concern
- Moral values & spending with relatively little attention

Next Steps
- Further filter the series by taking into account candidate visits & other cycles
- Extend timeline to include period leading up to conventions
- Explicit hypothesis tests of role of issue coverage (dynamic ownership & status)
- Address theories of bottom-up vs top-down issue salience in campaigns
- Multivariate perspectives: BVAR

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