"Computer-Assisted Reading" and other Discoveries from Quantitative Social Science

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(*Crimson Conversations* Talk, Riverside, CT, 4/12/12)

The Emergence of Quantitative Social Science

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  - We now read a tiny fraction haphazardly, and delude ourselves into thinking we understand all we need

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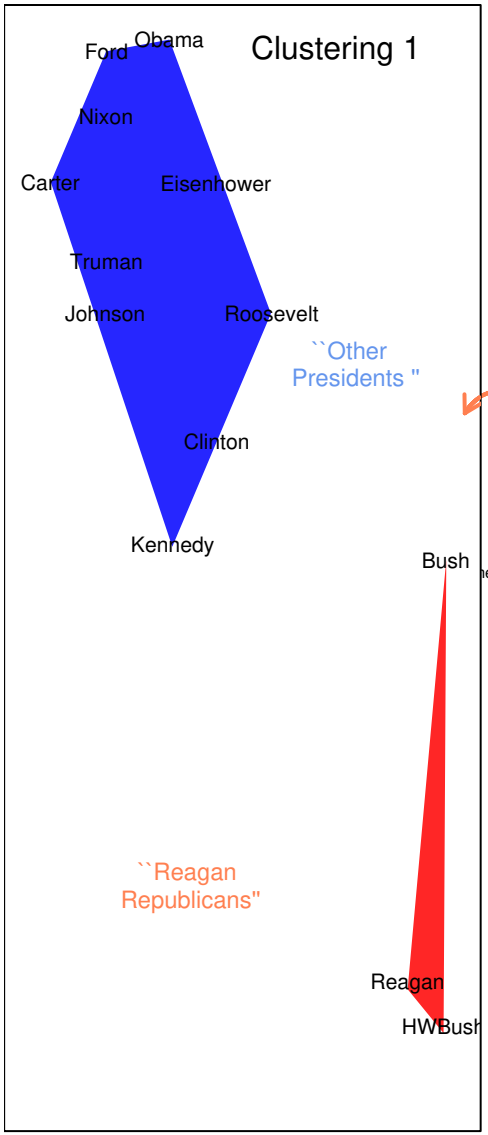
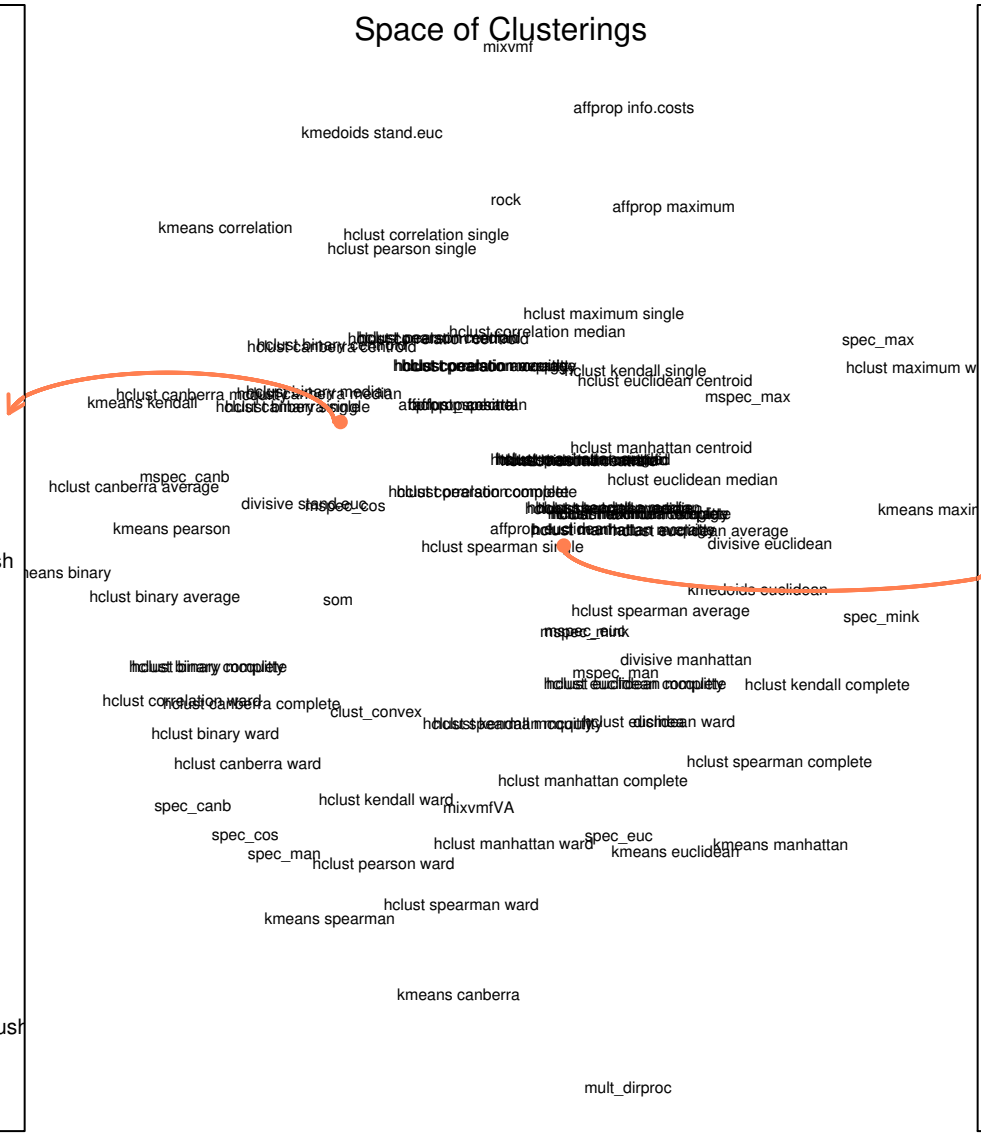
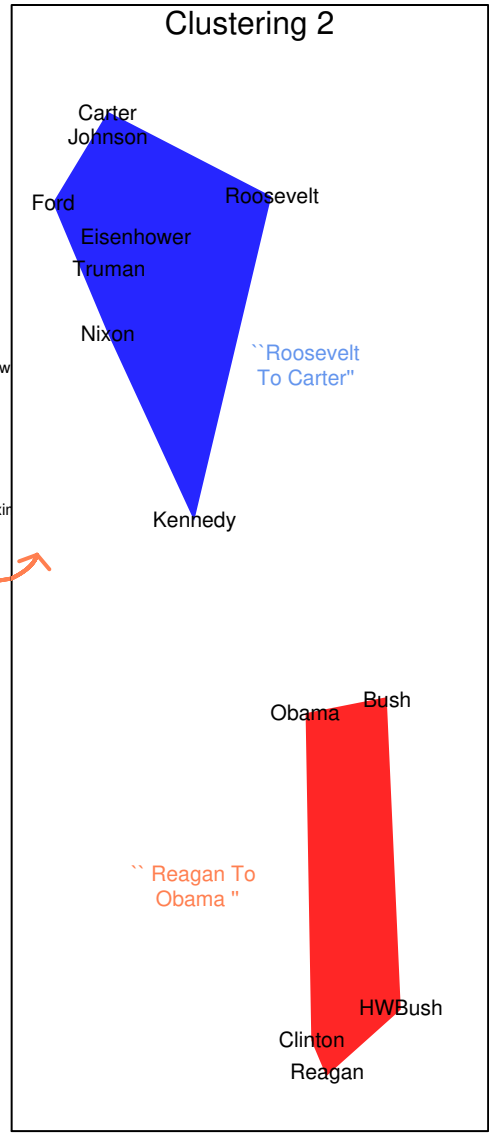
- Question: How to organize clusterings so humans can understand?

Humans Can Zoom in to Read; We Can Zoom Out

You choose one (or more) clustering, based on insight, discovery, useful information,. . .







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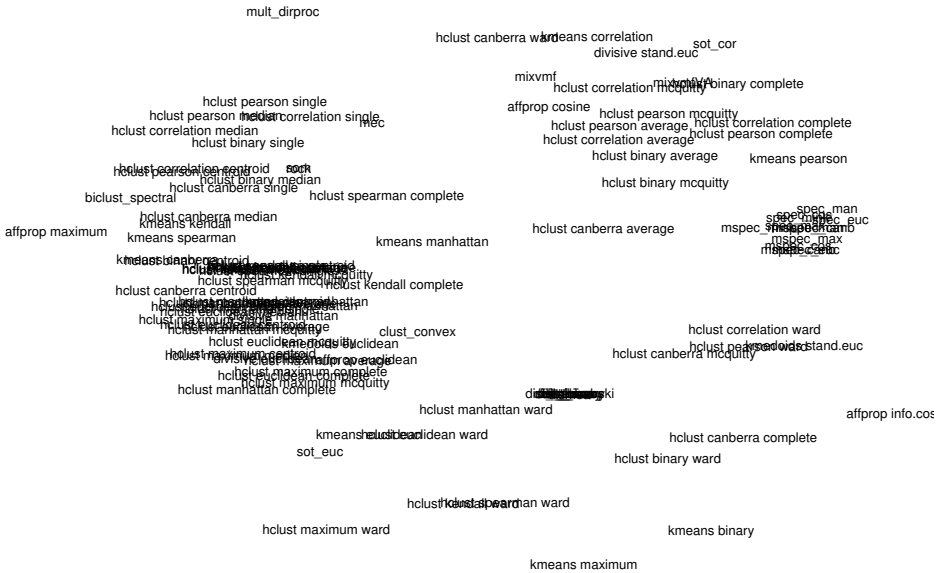
- Apply our method

Example Discovery



The space of clusterings

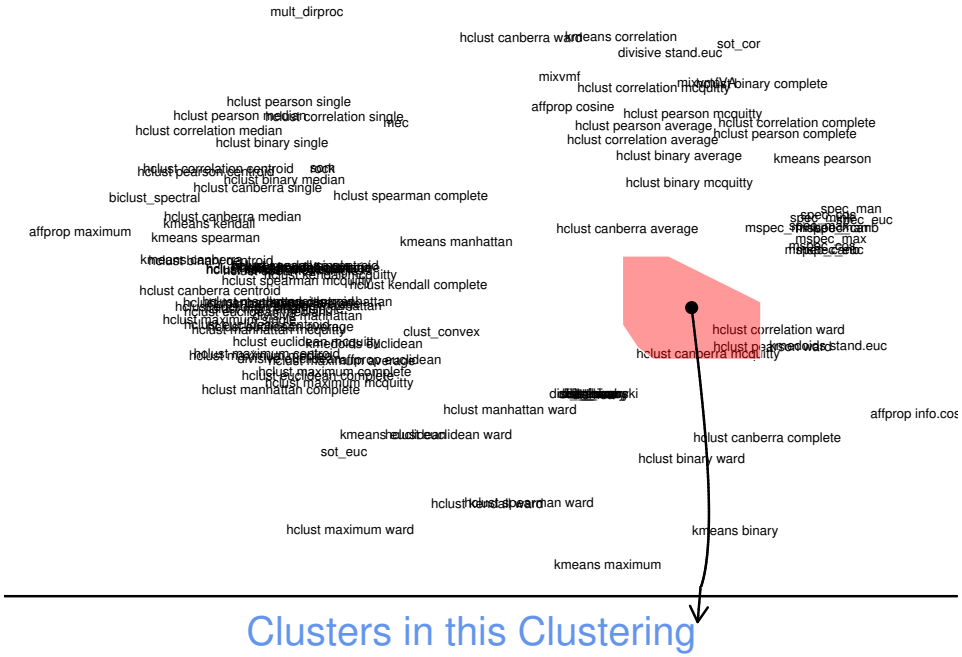
Example Discovery

Found a region with particularly insightful clusterings

Example Discovery

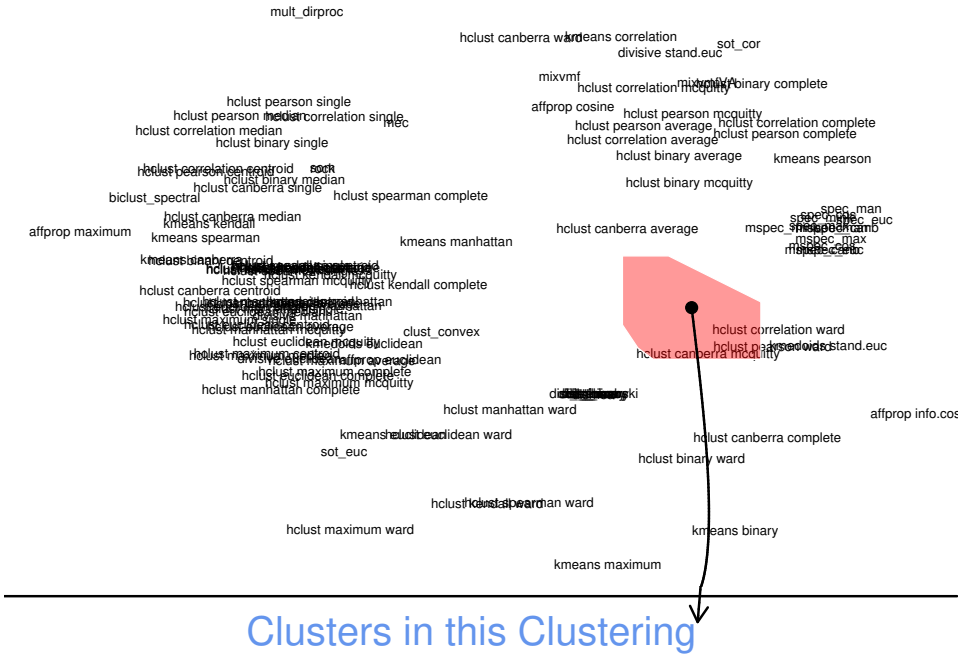
Let's look at **one clustering** in this region

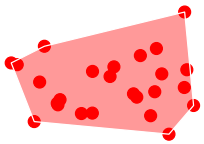
Example Discovery



Mayhew

Example Discovery



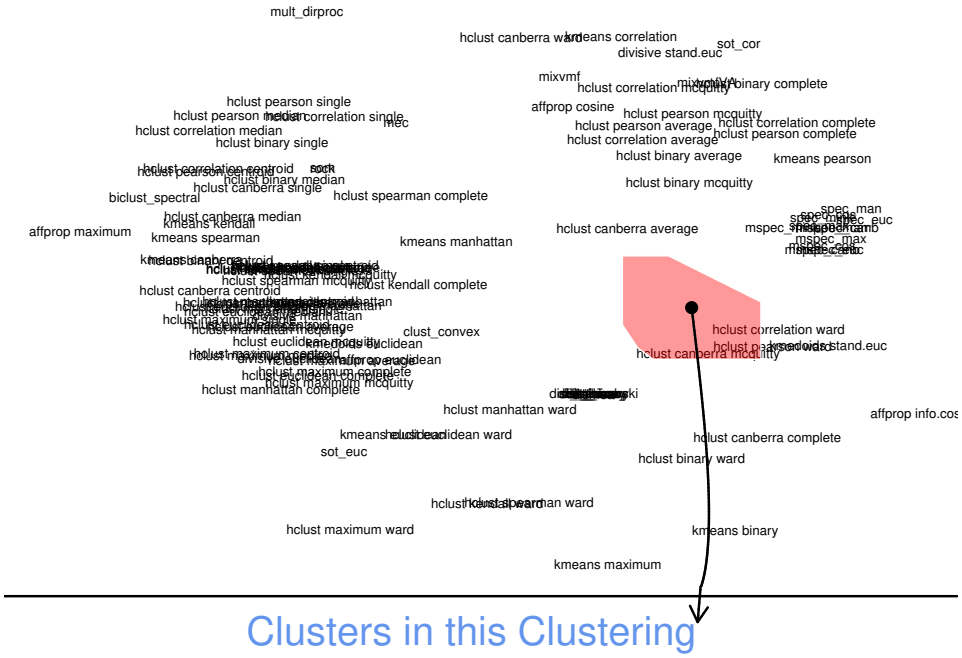


Credit Claiming
Pork

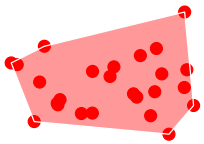
Credit Claiming, Pork:
"Sens. Frank R. Lautenberg (D-NJ) and Robert Menendez (D-NJ) announced that the U.S. Department of Commerce has awarded a $100,000 grant to the South Jersey Economic Development District"

Mayhew

Example Discovery



Clusters in this Clustering



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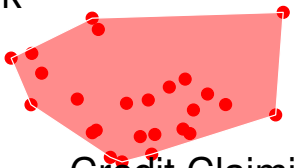
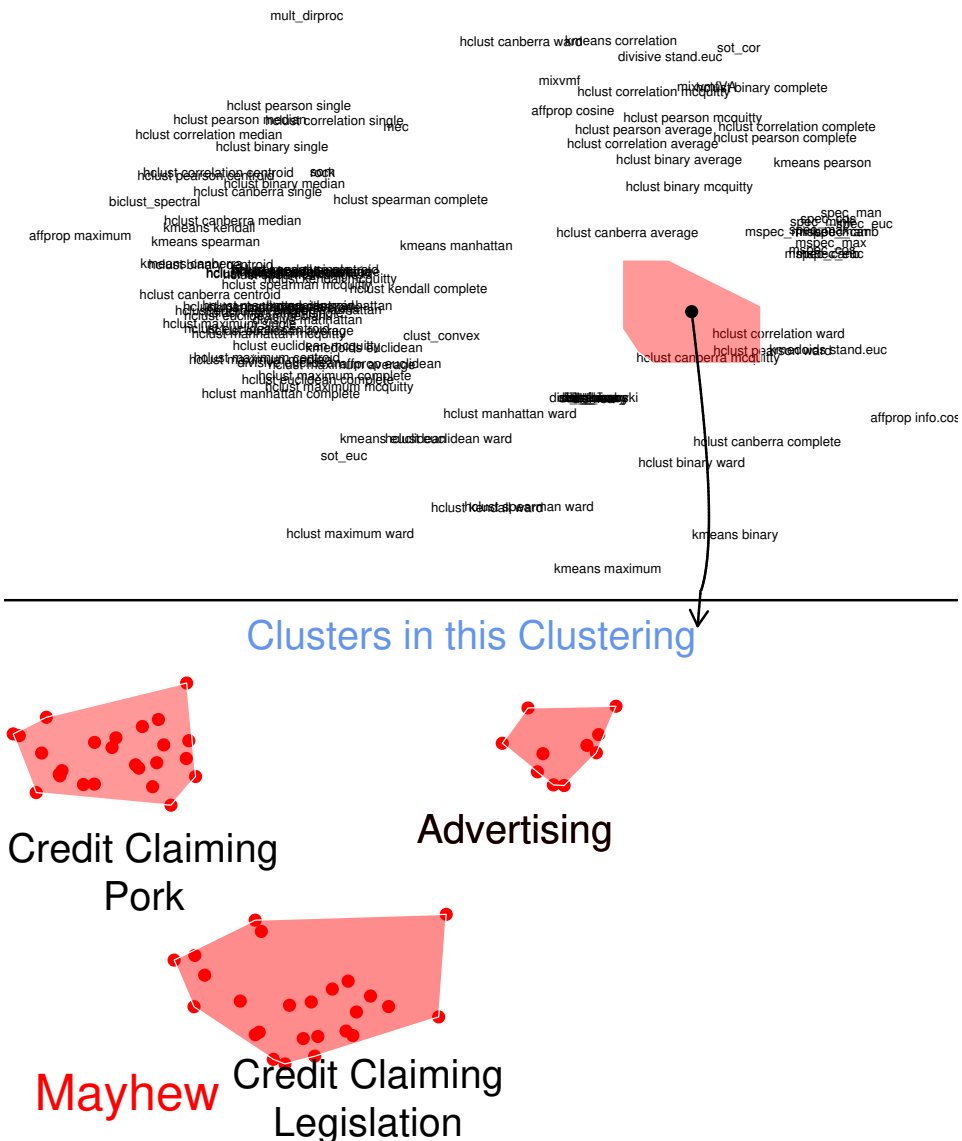


Mayhew

Credit Claiming
Legislation

Credit Claiming, Legislation:
"As the Senate begins its recess, Senator Frank Lautenberg today pointed to a string of victories in Congress on his legislative agenda during this work period"

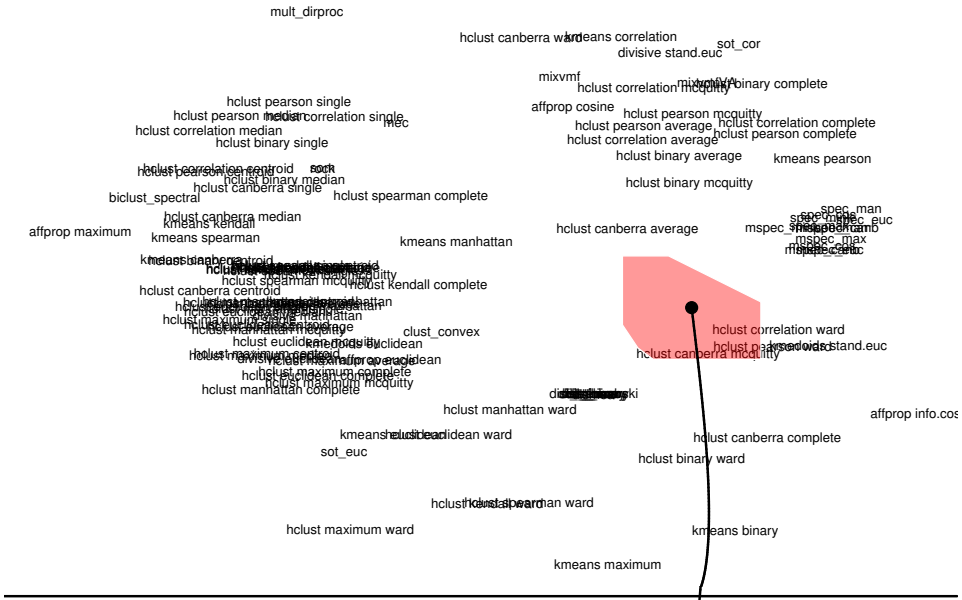
Example Discovery



Advertising:

"Senate Adopts Lautenberg/Menendez Resolution Honoring Spelling Bee Champion from New Jersey"

Example Discovery



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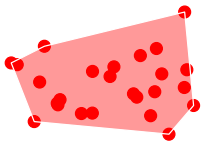

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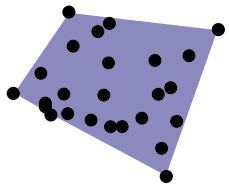
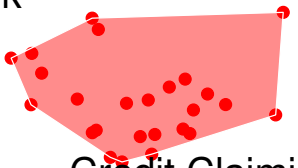
Partisan Taunting





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Credit Claiming
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Partisan Taunting:
"Republicans Selling Out Nation on Chemical Plant Security"

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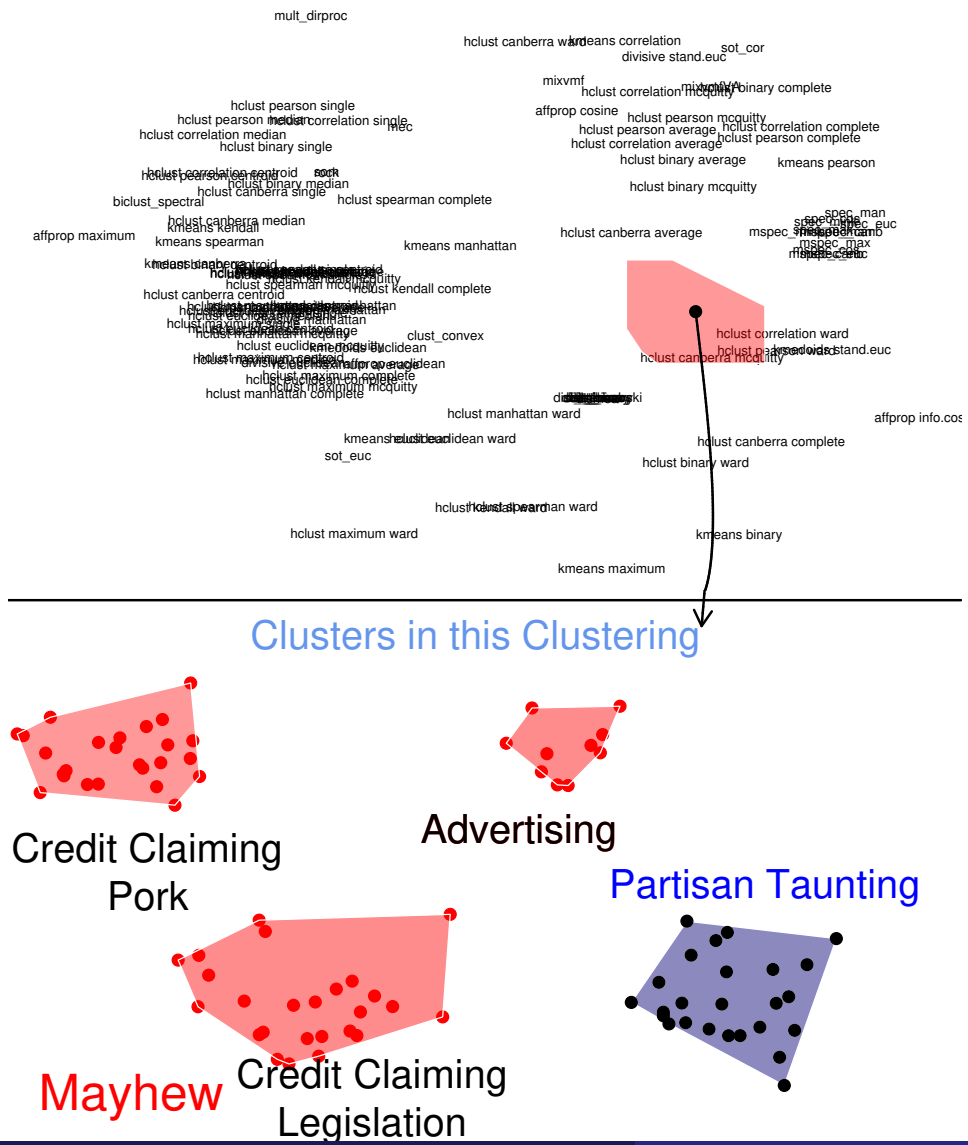

Partisan Taunting:

"Senator Lautenberg's amendment would change the name of. . . the Republican bill. . . to 'More Tax Breaks for the Rich and More Debt for Our Grandchildren Deficit Expansion Reconciliation Act of 2006"'

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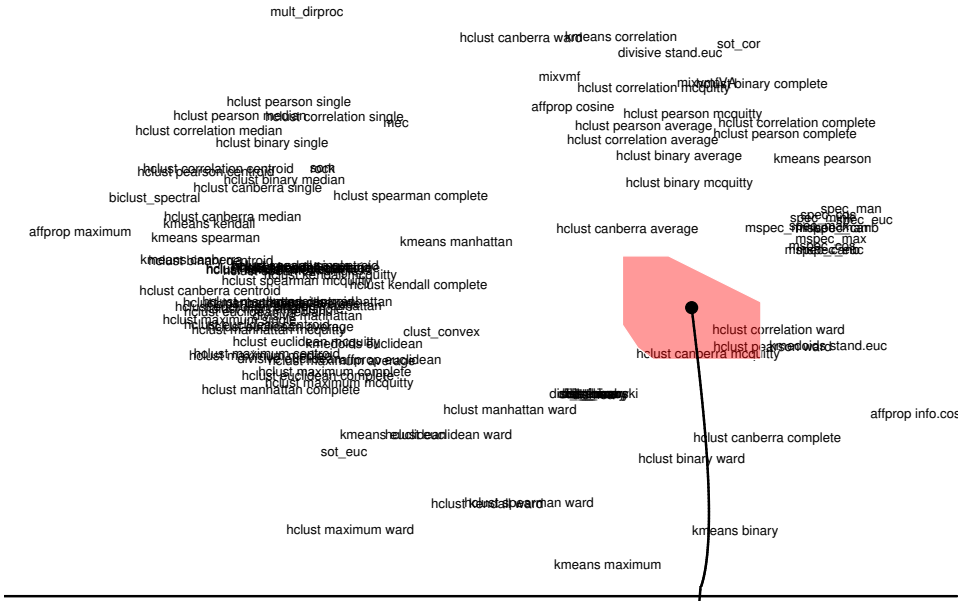

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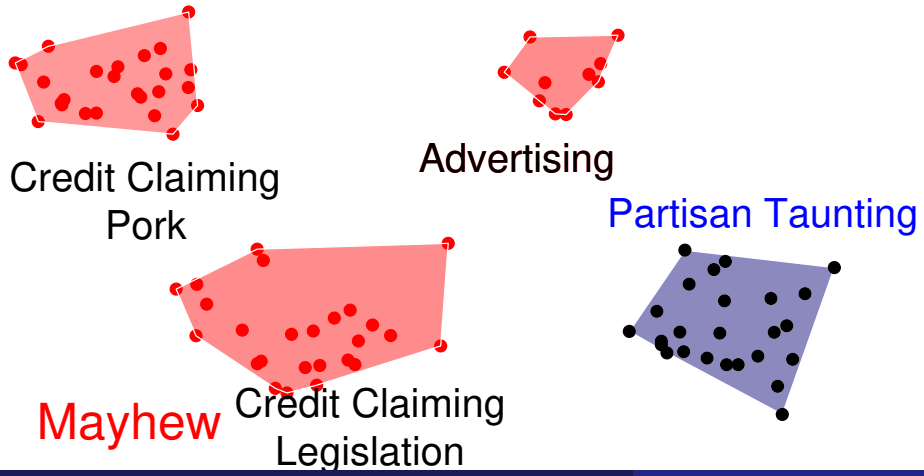

Definition of Partisan Taunting:
Explicit, public, and negative attacks on another political party or its members

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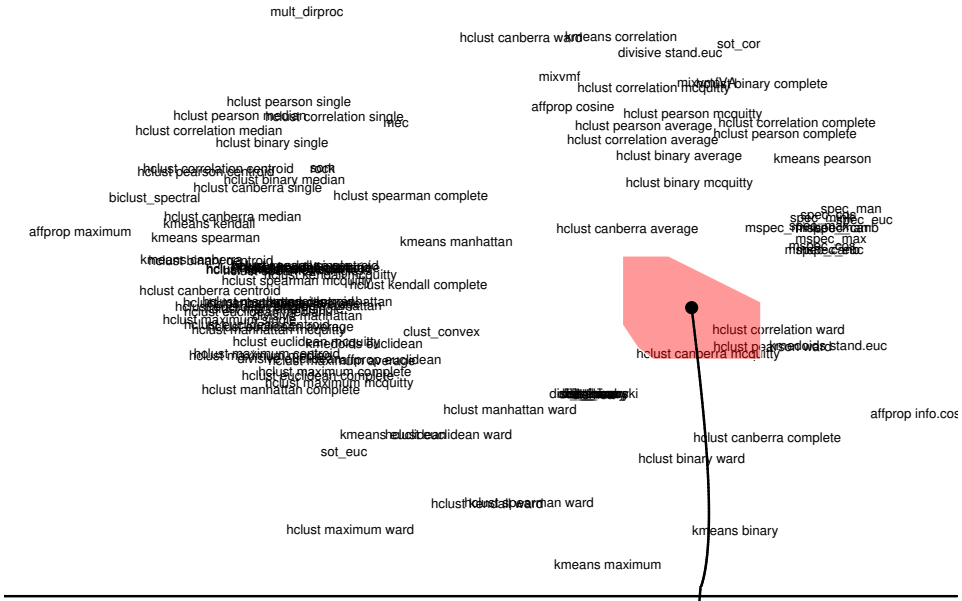

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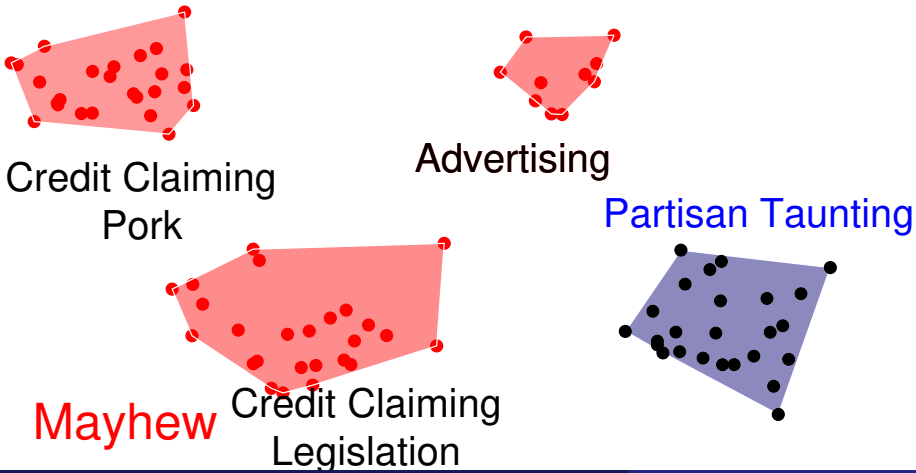

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Taunting ruins deliberation

In Sample Illustration of Partisan Taunting

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4/29/04

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- "The scopes trial took place in 1925. Sadly, President Bush's veto today shows that we haven't progressed much since then" [Healthcare]
- "Every day the House Republicans dragged this out was a day that made our communities less safe." [Homeland Security]

Out of Sample Confirmation of Partisan Taunting

- Discovered using 200 press releases; 1 senator.

Out of Sample Confirmation of Partisan Taunting

- Discovered using 200 press releases; 1 senator.
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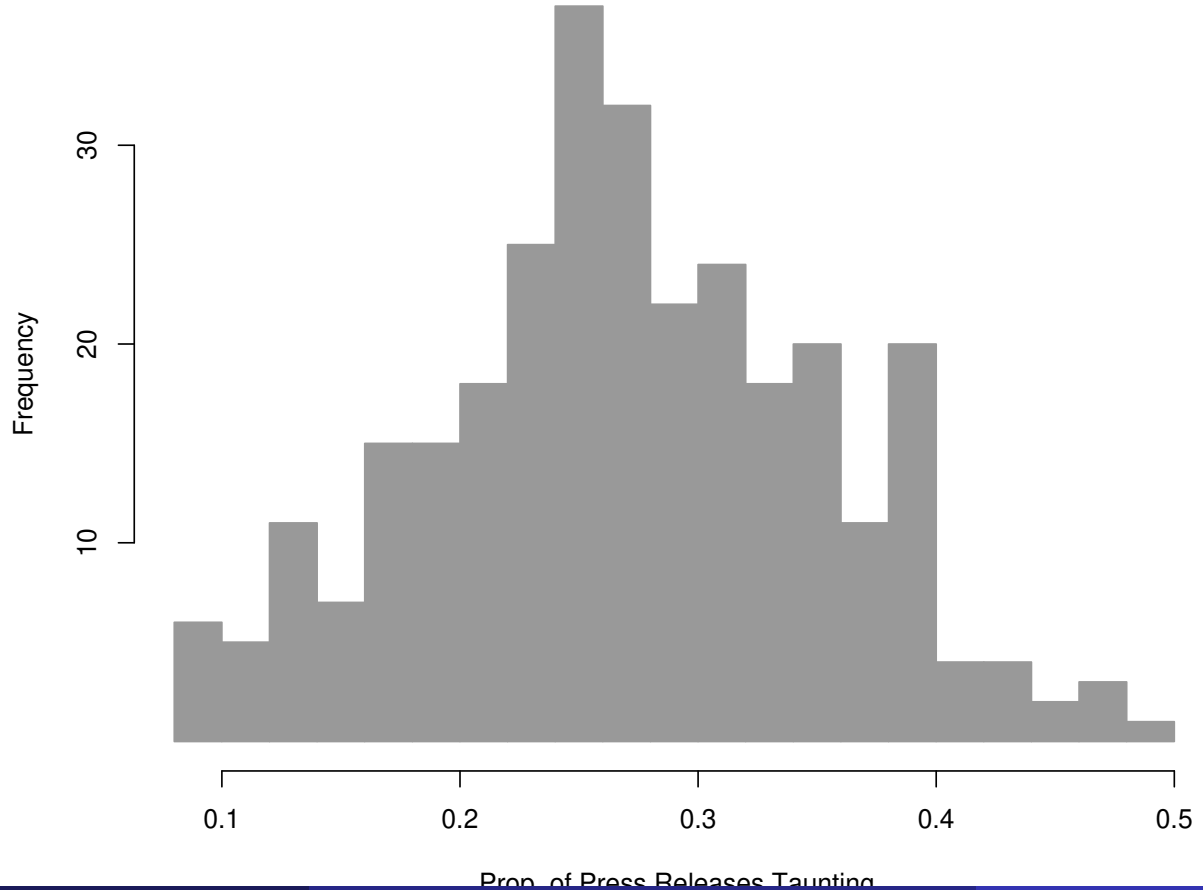

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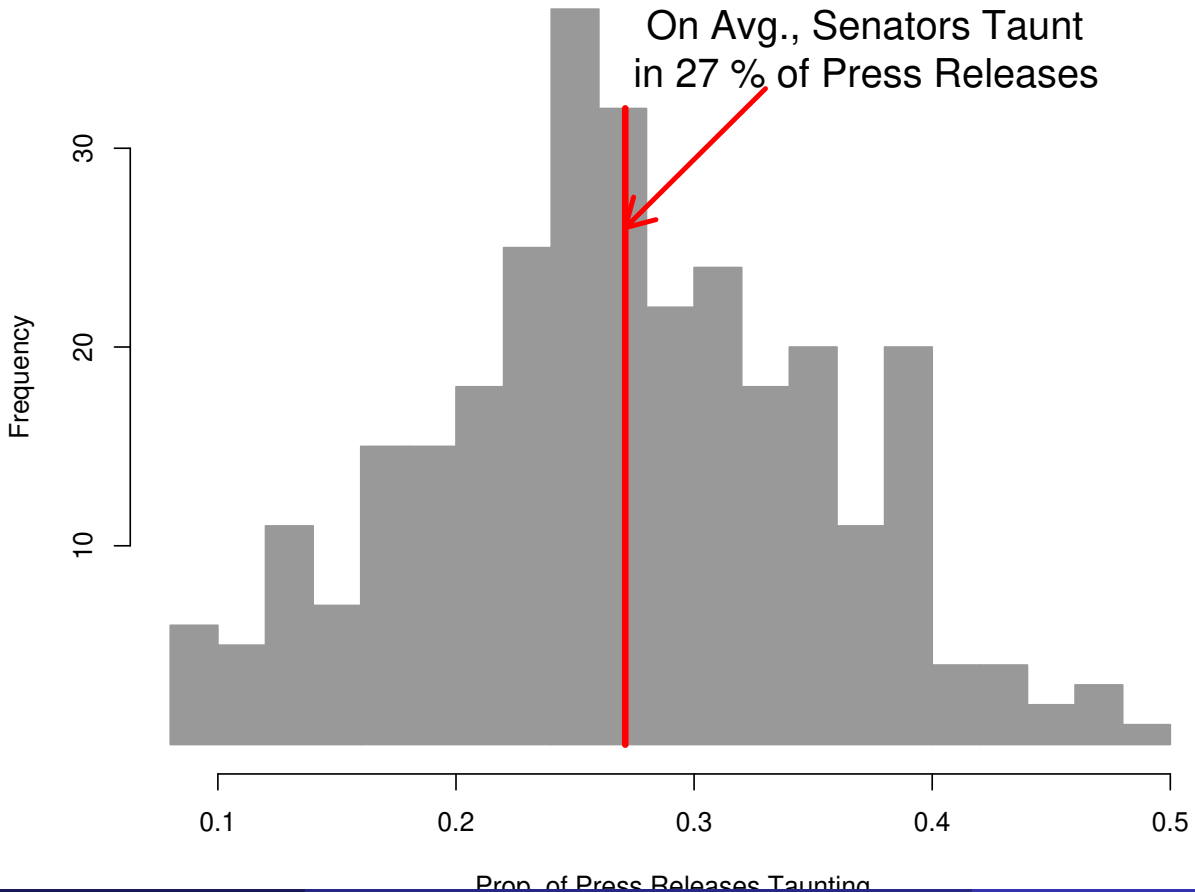

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7. Electoral activity: ballot images, precinct-level results, individual-level registration, primary participation, and campaign contributions

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13. Scholarly data: the replication movement in academia, led in part by political science, is massively increasing data sharing

For more information

http://GKing.Harvard.edu

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(Why Johnny Can't Classify)

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- Now imagine choosing the *optimal* classification scheme by hand!

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  - $\rightsquigarrow$ you can't have both!