Technology Capacity in Small to Medium Sized Cities: Lessons from and in Public Management Research

ALT-Title: American cities aren’t ready for the Twitter Presidency

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Research Areas
Public Management
  Sector distinctions, mentoring, nonprofit management, red tape, e-government
Science & Technology Policy
  Women in science, mentoring, collaborative networks, evaluation, e-government
Imperfect prediction, despite being imperfect, can be valuable for decision-making purposes.
I. Paper: Are small cities online? Content, ranking, and variation of U.S. municipal websites

II. National Study of Technology in Local Governments

III. Discussion of Public Management Research
part I:

Are small cities online? Content, ranking, & variation among U.S. municipal websites
Who Cares?

- People are mobilizing online
- Agenda setting is happening on Twitter
- Constituents demand responsiveness
- Capacity matters for security, public relations, trust, and so on
E-government: What we know

Most e-government research focuses on

- Federal government
- Single states
- Large cities
- Citizen perceptions

(Bearfield & Bowman, 2016; Mossberger & Wu, 2012; Youngblood & Mackiewicz, 2012; West 2008)
E-government: What we know

Small cities are less likely to be online

- Less technological infrastructure
- Less expertise
- Fewer resources
- Fewer incentives
- Fewer mandates
Research Questions

1. To what extent are small cities online?

2. How has this changed from 2010 to 2014, if at all?

3. Is there variation across cities? And if so, what explains that variation?
part II:
National Study of Technology in Local Governments
National study of technology use in 500 US municipalities, population 25,000-250,000
Surveying 5 department heads in each city:

- Mayor’s Office
- Community Development
- Finance
- Parks & Recreation
- Police

Website coding in 2010 & 2014
The survey data have been used across years, by function, & paired with Census data, city finance data, & website codes.
part I:
Are small cities online? Content, ranking, & variation of U.S. municipal websites
Research Questions

1. To what extent are small cities online?
2. How has this changed from 2010 to 2014, if at all?
3. Is there variation across cities? And if so, what explains that variation?
Ranking of cities with most website features 2010 & 2014
Change in city website features

2010 & 2014
<table>
<thead>
<tr>
<th>Feature</th>
<th>2010</th>
<th>2014</th>
<th>Change</th>
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<tbody>
<tr>
<td>Online Job Applications</td>
<td>237</td>
<td></td>
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<tr>
<td>Facebook</td>
<td>150</td>
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<td>Twitter</td>
<td>135</td>
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<td></td>
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<tr>
<td>Non English translation</td>
<td>93</td>
<td></td>
<td></td>
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<tr>
<td>You Tube</td>
<td>93</td>
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<td>Police Report Submission</td>
<td>87</td>
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<tr>
<td>Council Meeting Videos</td>
<td>83</td>
<td></td>
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<tr>
<td>Payment Transaction</td>
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<td>Site Contractor</td>
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<td>Recreation Online Registration</td>
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<tr>
<td>Employee Directory</td>
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<tr>
<td>District Maps</td>
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<tr>
<td>Department Descriptions</td>
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<tr>
<td>Major Speech</td>
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<tr>
<td>Voting Registration</td>
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<td>Search Bar</td>
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<td>Privacy Statement</td>
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<td>Search Provider</td>
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<td>Online List of Jobs</td>
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</tr>
</tbody>
</table>
What explains variation in city website features?
Website Features

E-Services
Engagement
Information
Transparency
Utility
Website Features: Predictors

- population (+)
- form of government (Council Manager +)
- technical capacity (+)
Website Features: Predictors

centralization (-)
work routineness (-)
personnel constraints (-)
risk-taking (+)
external stakeholder influence (+)
external site provider (+)
What are the limitations & contributions of this paper?
For Researchers

- Baseline, generalizable information
- Importance of political factors
- Importance of external providers
- Change in website ranking is fast
- We lack data on quality of features
For Practitioners

- Most common features are basic
- Many websites lack basic information
- Need for active sites
- Low capacity for active sites
- Potential market for providers
part III:
Public Management Research
Our research assesses managerial roles in technology adoption & use, with a smattering of other management topics.
Findings include knowledge about ICT adoption, managerial roles, barriers & determinants of technology adoption & use.
Broad Findings

- Technological capacity is low in smaller cities but critical for adoption
- Managers believe e-government improves outcomes
- Trust in technology is increasing
- Managerial perceptions & personal use are predictors of technology adoption
- Organization culture, mandates, and technological capacity drive adoption, sharing, & use
- Politics matter for adoption & use
Data also contribute to research on work life balance, citizen participation in decision making, diversity in orgs, person-organization fit, & red tape measurement.
Outputs include more than 25 publications, 5 dissertations, 6 international presentations, 4 annual reports, & at least 22 collaborators
Challenges

Opportunities
Challenges

- Funding / Data Access
- Surveys / Research Design
- Managerial focus
- Relevance & Timeliness
Opportunities

- Open data
- Interdisciplinary methods
- Relevance & Timeliness

Interested, Interesting, Doable
Learn more about this work at: https://csteps.asu.edu/

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Twitter: @mkfeeneyASU
Request papers at Research Gate
Dissertations

Rashmi Krishnamurthy: Use of social media for internal and external collaboration: Evidence from US local governments, 2016

Gustavo Oliveira: Use of social media for citizen engagement by local governments in the US, 2014
Papers


Fusi, Federica, and Feeney MK. Accepted. Social Media in the Workplace: Information Exchange, Productivity, or Waste? *American Review of Public Administration*

Grimmelikhuisen, SG, and Feeney MK. Accepted. Developing and testing an integrative framework for open government adoption in local governments. *Public Administration Review*.


Papers


Papers


