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### Topic Modeling the Research-Practice Gap in Public Administration

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# Topic Modeling the Research-practice Gap in Public Administration

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# Topic Modeling the Research-practice Gap in Public Administration

## Abstract

The possible existence of a research-practice gap is the topic of a longstanding debate in the field of public administration. In this study, we examined the agendas of scholars and practitioners using the topic modeling technique of computational social science. Topic modeling content analysis of 35 identified topics in the *Public Administration Review* and *PA Times* (3,796 articles) showed that just over 50% of topics were common to both groups, indicating shared interests. There were, however, topics distinctly focused on by the two groups. Moreover, scholars and practitioners attached significant differences to the weights allocated to the prominent topics in their writing. Taken together, these findings indicate that topic modeling can shed new light on the research-practice gap in public administration.

Simon (1947) famously described public administration (PA) as a design science solving complex, human-related, real-world problems. Central to solving these problems are the scholars and practitioners who constitute the PA “community.” However, the literature on the relationships between scholars and practitioners has typically highlighted challenges: for instance, Newland (2000) discussed “struggles for connectedness.” Scholars are concerned about the extent to which their research can engage and contribute to practice, while practitioners lament the fact that scholarly work is not easily understood, too abstract, or offers limited wisdom for practice. This is what some authors have called the “two communities” phenomenon or the research-practice gap (Edwards 2005; Newman, Cherney and Head 2016).

In this debate, one stream of research has suggested that practitioners do not use or value academic research, implying that there is a lack of congruence between scholarly research and practice (Howlett and Newman 2010). This disconnect can be explained by the ambiguous and often conflicting goals and expectations of research in universities vis-à-vis what is needed in practice (van Witteloostuijn 2016). However, another stream of research has suggested that academic research is valuable to practitioners and has a concrete influence on their policy advice and decision-making. Studies have shown that policymakers use research to varying degrees, depending on the questions asked, the level of risk involved, and the area in which they work, suggesting that the interaction between policy and academia should not be seen as a disconnect but can be viewed as a continuum (Jennings and Hall 2012; Newman, Cherney and Head 2016). To date, studies on the research-practice gap have mainly used observational data from surveys or interviews. In contrast, this study used a computational social science technique, topic modeling, to examine whether scholars and practitioners are at opposite ends of the continuum or if there is common ground between them.

We addressed this issue by identifying scholars' and practitioners' topics of interest. By identifying the main topics of concern for both groups, we could better articulate and map their relative location in the gap to stimulate a new conversation to bridge this gap. We used topic modeling, a machine learning technique, to analyze the content of the titles and abstracts of *Public Administration Review* (PAR) and *PA Times* (PAT) articles over the last decade.<sup>1</sup> We identified and compared various topic areas derived from the text corpora. The analysis suggested common ground in the gap: the two groups shared the same or similar interests in 18 topics—just over 50% of the topics—while differences were found in 17 topics. However, the weights assigned to these topics by scholars and practitioners varied, showing subtle but important differences in the main topics of interest for both groups, indicating a research-practice gap. The findings are thus indicative of a continuum and not a disconnect, but with the balance more being at the side of disjoint interests.

## **Data and Methods**

### **Data**

We collected 3,796 published articles from two main sources: PAR (titles and abstracts for 782 articles) and PAT (3014 articles).<sup>2</sup> Both journals are published by the American Society for Public Administration (ASPA). PAR is a bimonthly peer-reviewed academic journal devoted to research, theory, and practice in PA, and a leading journal in the scholarly field of PA. PAT is published online twice a week and highlights emerging trends in PA and includes expert columns on best practices and lessons learned for public managers and public sector employees. The PAR and PAT articles were chosen to represent the perspectives of research and practice, respectively.<sup>3</sup>

## **Topic Modeling**

Topic modeling is an algorithm for finding topics in large and unstructured text data collections. It is part of the “text as data” movement in the fast-growing field of computational social science (Roberts et al. 2014; Grimmer and Stewart 2013). The idea behind topic modeling is that documents are a mixture of topics, in which a topic is a probability distribution over words, allowing words with similar meanings to be clustered (Blei and Lafferty 2007; Steyvers and Griffiths 2007). Among the many topic models, Latent Dirichlet Allocation (LDA) is perhaps the most commonly used technique (Blei, Ng and Jordan 2003). LDA is a Bayesian mixture model for discrete data in which topics are uncorrelated. The objective of topic modeling is to extract latent semantic topics from large volumes of textual documents (i.e., corpora). Because of this feature, topic modeling has been used as an analytical tool in various fields of study (Haans and van Witteloostuijn 2019; Jiang, Meng and Zhang 2017; Lauderdale and Clark 2014).

The topic modeling method has several advantages when applied to text corpora. First, compared with traditional (i.e., manual) narrative review, which involves directly reading and assessing bibliographic materials subjectively, topic modeling uses text mining to objectively and more efficiently examine large quantities of texts. Second, unlike previous studies that have often used a preconceived taxonomy as a guiding framework for classifying (latent or hidden) topics, topic modeling uncovers latent topic categories using a systematic and grounded analytical approach. Therefore, the process is more transparent and replicable, which helps overcome the ambiguity of manual or taxonomy-based categorizations. Third, the unit of analysis in topic modeling is the emerging topic and not the article, which allows researchers to trace topics across articles and better map current discourses in the field and their dynamics over

time. From the perspective of topic modeling, each article is a mixture of multiple topics with different probabilities, among which the topic with the highest probability is called the primary topic. This means that each article has one primary topic. The topic weight is measured by the number of articles with the primary topic divided by the total number of articles. A topic with a higher topic weight is considered a more prominent topic.

The analysis consisted of three main steps. The first step was data preprocessing. We merged the title and abstract of each PAR article into a single document and created a corpus of 782 text files and merged each PAT article into a single document and created a corpus of 3,104 text files. We then removed all stop words (e.g., articles, such as “a,” “an,” or “the,” and prepositions, such as “of,” “by,” or “from”), numbers, and punctuation characters, and converted the text to lowercase in the corpora. As some general words appear in most scholarly articles, e.g., “article,” “find,” “effect,” or “discuss,” we constructed a list of additional stop words and removed them from the corpora. The second step was to fit the model. Using the *tm* package in the R programming language, we converted the articles into a document-term matrix (DTM) to facilitate topic modeling. We specified the number of topics before fitting the model. Different metrics (Cao et al. 2009; Arun et al. 2010; Griffiths and Steyvers 2004) were used as benchmarks and the results revealed that the optimal number of topics was 35 for both publications.<sup>4</sup> We used the R package *topicmodels* to fit the LDA model (Hornik and Grün 2011). Finally, after fitting the LDA model, we manually validated the topics and labeled them.<sup>5</sup> Topic labeling was conducted by the authors of the article that have more than 40 years of research experience in the field of PA. The lists of the most prominent words for each topic and randomly selected articles were provided to the experts, and each expert was asked to label each topic individually. Topic labels were selected by consensus.<sup>6</sup>



We present our results below in three tables and one figure comparing the areas of interest (i.e., topics) in PAR and PAT. The left panel in each table lists the topics from PAR and the right panel those from PAT. Each topic is ranked by its topic weight – that is, the percentage of articles associated with each topic. The tables show the extracted and labeled topics. The analysis of the topics is presented in three groups. First, category “same topics” consist of topics with almost the same terms for the two groups. Second, “similar topics” include topics with similar broader themes but whose focus varied when topic terms were examined. Third, the “distinct topics” category are the unique topics discussed by scholars and practitioners. We indicate the topic weight (TW) ranking for ease of comparison.

## **Findings**

### **Same Topics**

Table 1 shows the nine “same topics” shared by scholars and practitioners. These include readily identified topics in PA: emergency management, financial management, nonprofit management, and performance management. Some of these topics had similar rankings in PAR and PAT. For example, performance management, one of the most fundamental changes brought about by New Public Management, was the 3<sup>rd</sup> (TW = 4.48%) most studied topic for scholars and ranked 5<sup>th</sup> (TW = 3.95%) for practitioners, while emergency management was a pressing concern for both practitioners (ranked 4<sup>th</sup>, TW = 4.28%) and scholars (ranked 10<sup>th</sup>, TW = 3.20%).

[Insert Table 1 about here]

However, a closer look at the ranks and topic weights in Table 1 suggests variations in the overall importance of these “same topics” and other topics between scholars and

practitioners. A number of “same topics” were ranked relatively low among all topics by both communities. These topics were the following: financial management, ranked 16<sup>th</sup> (TW = 2.81%) by scholars and 15<sup>th</sup> (TW = 2.85%) by practitioners; public-private relations, ranked 24<sup>th</sup> (TW = 2.30%) by scholars and 23<sup>rd</sup> (TW = 1.99%) by practitioners; and ethics, ranked 22<sup>nd</sup> (TW = 2.56%) by scholars and 26<sup>th</sup> (TW = 1.92%) by practitioners. Conversely, some topics had a high ranking in PAR, but a low ranking in PAT, or vice versa. For example, practitioners ranked healthcare as an important topic (6<sup>th</sup>, TW = 3.95%), but not scholars (25<sup>th</sup>, TW = 2.30%). Nonprofit management ranked 21<sup>st</sup> (TW = 2.56%) in our analysis of PAR, but ranked 9<sup>th</sup> (TW = 3.62%) in PAT. Citizen participation was not considered a highly salient topic by practitioners (25<sup>th</sup>, TW = 1.99%), but was widely studied by scholars (7<sup>th</sup>, TW = 3.45%).

To examine the changes in these nine “same topics,” we plotted their topic weights over time. In Figure 1, the horizontal axis represents time and the vertical axis the topic weights. The dotted lines describe the changing patterns of the topic weights for the scholarly articles and the solid lines those for the practice articles.

[Insert Figure 1 about here]

The nine panels in Figure 1 show that the topic weights were initially higher in scholarly work. While the chosen period of analysis may influence the visualization of the topics, necessitating further research on the founding topics (cf. Haans and van Witteloostuijn 2019), these data suggest that scholars followed these agendas, which were then surpassed by the topic weights of the practitioner writing in PAT. Within this, scholars and practitioners’ attention exhibits different patterns over time. In particular, the attention paid to emergency management

and healthcare reached its peak at different times, probably because these issues are heavily shaped by “front-burner” events, social media, and political campaigns. For example, the topicality of health for practitioners was driven by the implementation of Obamacare after 2010. In contrast, the attention that scholars and practitioners paid to public-private relations was consistent, especially after 2012, indicating a congruence of focus on this topic.

### **Similar Topics**

The nine “similar topics” with similar broader themes are shown in Table 2. The data show the differences in focus on “similar topics,” with scholars examining certain aspects of the topics and practitioners typically focusing on more general discussions of the topics. The examples include two highly rated topics: public service motivation (2<sup>nd</sup>, TW = 5.88%)/human resource management (3<sup>rd</sup>, TW = 4.48%), and leadership (8<sup>th</sup>, TW = 3.75%)/leadership strategy (8<sup>th</sup>, TW = 3.32%). When discussing human resource management, scholars paid more attention to the motivational aspect of public employee work, whereas practitioners focused on the employee, their work, and the entire workforce. Similarly, scholars focused more specifically on strategic leadership practices, while practitioners discussed the importance of leadership and team building in organizations. These differences in focus highlight the research-practice gap, particularly where the need to publish pushes scholars towards more narrowly defined topics.

[Insert Table 2 about here]

Similar to “same topics,” there were also differences in the overall importance of the topics. Four topics in Table 2 have a ranking difference of more than 10 places. Scholars ranked representative bureaucracy lower (23<sup>rd</sup>, TW = 2.43%) than practitioners ranked social equity

(11<sup>th</sup>, TW = 3.28%). Similar divergent priorities were observed in environmental governance (32<sup>nd</sup>, TW = 1.41%) and sustainability (17<sup>th</sup>, TW = 2.62%). Conversely, practitioners ranked innovation lower (30<sup>th</sup>, TW = 1.66%) than scholars ranked the related topic of reform (5<sup>th</sup>, TW = 3.84%), and they ranked intergovernmental relations lower (32<sup>nd</sup>, TW = 1.49%) than practitioners ranked local-state government relations (4<sup>th</sup>, TW = 4.22%).

### **Distinct Topics**

There were 17 unique topics for scholars and practitioners (see Table 3). These topics highlighted actual differences in interest by being placed further apart on the research-practice continuum, symptomatic of a wide gap. An interesting result was that the top ranked topic for each group reflected distinct areas of interest for scholars (TW = 7.29%) and practitioners (TW = 7.66%): PA practice and practical solutions, respectively. Table 3 shows again that scholars used more abstract theoretical concepts (public values, red tape, federalism, collaborative governance, and institutional capacity), while practitioners focused on specific issues (law enforcement, aging, education, veteran welfare, and food safety) to find practical solutions to these problems. One reason for this difference may be that although scholars are encouraged to present the practical implications of their research, they may often write what they perceive to be important to practitioners. Therefore, the primary topics emerging from scholarly research may not always correspond to the main concerns of practitioners. For example, aging, veteran welfare, and food safety issues were highly ranked topics by practitioners, while they were rarely studied by scholars. Likewise, emerging trends such as social media and information technology were rarely studied by scholars, but were of great interest to practitioners.

[Insert Table 3 about here]

## **Discussion**

Some may argue that scholars and practitioners are at different ends of the research-practice continuum and that closing this gap is too difficult a task, as scholars and practitioners ask different questions, use different methodologies to answer these questions, and generate answers that are often irrelevant to the other party. The results of this study revealed some convincing evidence of the research-practice gap, with a clear divergence of topics between scholars and practitioners. In addition, there were some subtle differences associated with the weights attached to the topics. However, there was also the suggestion of common ground between scholars and practitioners on a wide range of topics.

Scholars and practitioners shared 18 “same topics” or “similar topics,” with higher topic weights than “distinct topics” (total TW = 57.68% for scholars and 53.08% for practitioners), suggesting that they converged on important topics. The analysis of dynamic changes in the nine “same topics” published in PAR and PAT over time showed subtle differences in attention to topics. Due to the nature of the issues, the interests of scholars and practitioners resulted in a one- to two-year gap during the period analyzed. In addition, nine “similar topics” with broader themes were shared between scholars and practitioners, but the two groups ranked them differently. Nonetheless, the findings suggest that the interests of scholars and practitioners may overlap and that it is possible to develop topics and agendas that meet the interests of both groups. For example, “same topics” and “similar topics” had similar numbers of topics rated in the overall top 10 most important topics for the two groups: eight for scholars and seven for practitioners. However, the lowest ranked topics in Tables 1 and 2 include four topics for

practitioners (citizen participation, ethics, innovation, and intergovernmental relations) and one for scholars (healthcare). This further highlights subtle differences in the relative importance of topics for scholars and practitioners and the divergence between the two groups.

“Distinct topics” highlighted more clearly that scholars and practitioners were at different ends of the research-practice continuum, symptomatic of a gap. These topics are indicative of concerns in the literature that academics’ focus is relatively narrow and that of practitioners relatively broad. In addition, practitioners grasped cutting-edge and critical issues in PA, such as age and information use. Some of these differences may be attributable to the different publication processes and different interests of PAR and PAT. Indeed, academic journals such as PAR must follow a rigorous and lengthy peer review process, which may slow down topic innovation. In contrast, PAT responds to trending social issues and societal changes. Also, it may take a while before novel academic insights find their way to practice.

These findings speak to the “two-communities” argument, which is suggestive of the different norms and values of practitioners and scholars (Newman, Cherney and Head 2016). Academics focus on advancing scholarly knowledge through rigorous and technical methodologies, and practitioners pay more attention to user-friendly knowledge in readable language (Landry, Lamari and Amara 2003). To bridge the gap, knowledge transfer mechanisms that facilitate sustained and intense interactions (such as conferences, online and offline forums, magazines) between researchers and practitioners, and vice versa, that adapts research products to users’ needs, and to incentivize users to actively acquire academic knowledge, should be explored.

The two ASPA outlets are the two communities’ primary places of publication. Further research using different periods and different academic and practitioner journals may provide

more comprehensive results. However, this study presented a new analytical technique—topic modeling—for a more objective, transparent, and efficient analysis of textual data, offering ample opportunities for future work to produce important new information and insights for the study and practice of PA. For instance, in line with Haans and van Witteloostuijn (2019), we could examine the regional origin and (absence of) international diffusion of topics.

## Notes

<sup>1</sup> The PAT archives used ranged from 2010 to February 2019. The PAR articles ranged from 2008 to 2017. Both contained 10 years of articles. The supplementary online materials present the separate topic ranking for PAR and PAT.

<sup>2</sup> Abstract and title information for the PAR articles was collected from the Web of Science; for the PAT articles, information was collected from the magazine's online archive (<https://patimes.org/library/>, date of retrieval: 03/15/2019). According to the PAR publication guidelines, the title and abstract of the article should appeal to both scholars and practitioners. An abbreviated version of the main idea of the article should be used in the title. In addition, the abstract should be a concise summary of the research paper, including the topic, arguments, and conclusions. From this perspective, we should be able to grasp the main idea of the article by reading the abstract and title. However, the PAT articles are closer to periodicals, and only by reading the whole piece can we grasp the main theme of the article. Therefore, we believe that the abstracts and titles of PAR and the full texts of PAT are comparable.

<sup>3</sup> We acknowledge that the authors in either PAR or PAT comprise both scholars and practitioners. Indeed, historically, PAR has sought submissions by practitioners, some of whom are expert researchers, and some scholars publish their insights in PAT. Nonetheless, the two outlets have distinct niches: PAR publishes more theory-driven research, while PAT publishes more practice-oriented articles. We thank one of the anonymous reviewers for drawing this to our attention.

<sup>4</sup> Cao et al. (2009) demonstrated that the LDA model performs best when the average cosine distance of the topics reaches the minimum. Arun (2010) viewed LDA as a matrix factorization method, which factorizes a document-word frequency matrix  $M$  into two matrices  $M_1$  and  $M_2$  of



order  $T*W$  and  $D*T$ , respectively, where  $T$  is the number of topics and  $W$  is the size of the vocabulary of the corpus. The metric is computed in terms of symmetric KL-Divergence of salient distributions derived from the two matrix factors, the divergence values being lower for the optimal number of topics. In addition, Griffiths and Steyvers (2004) suggested that one way of selecting the number of topics is to approximate the marginal corpus likelihood using the harmonic mean of a set of samples generated by the Gibbs sampler. These different metrics indicated that the optimal number of topics ranged from 30 to 35 for PAR and from 30 to 50 for PAT. Applying human validation, we decided that the optimal number of topics was 35 to allow comparison between the two publications.

<sup>5</sup> In a topic, each token (term or phrase) has a weight, some more dominant in their representation of the topic than others. In practice, the five (or so) most dominant terms enabled the researchers to identify the topic content and manually assign a label. For instance, the key terms “intergovernmental,” “response,” “relations,” “emergency,” and “management” largely characterized the field of emergency management. We thus labeled this topic as “emergency management.”

<sup>6</sup> Two practitioner topics from PAT could not be named based on the terms. Further terms beyond the five shown here were reviewed, but did not provide further information on a suitable label for these topics. We thus named them Miscellaneous 1 and Miscellaneous 2.

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Table 1: Same Topics with Top Five Terms, Topic Weight from PAR and PA Times

<i>Public Administration Review</i>				<i>PA Times</i>			
Topic Name	Rank	Topic Weight (%)	Top five terms in the topic	Topic Name	Rank	Topic Weight (%)	Top five terms in the topic
<b>Same Topics</b>							
Performance management	3	4.48	Performance, management, information, managerial, effectiveness	Performance Management	5	3.95	management, performance, organization, process, goals
Citizen Participation	7	3.45	Citizens, citizen, participation, engagement, increase	Citizen Participation	25	1.99	government, citizens, citizen, participation, accountability
Emergency Management	10	3.20	Intergovernmental, response, relations, emergency, management	Emergency Management	4	4.28	emergency, disaster, management, response, crisis
Election	11	3.20	Election, market, financial, costs, terms	Election	24	1.99	political, elected, politics, election, party
Financial Management	16	2.81	Process, budget, transparency, fiscal, budgeting	Financial Management	15	2.85	state, budget, financial, local, funding
Nonprofit Management	21	2.56	Nonprofit, organizations, human, resource, nonprofits	Nonprofit Management	9	3.62	community, organizations, nonprofit, resources, collaboration
Ethics	22	2.56	Behavior, school, ethics, ethical, schools	Ethics	26	1.92	ethical, ethics, public, code, administrators
Public-private Relation	24	2.30	Sector, new, change, private, changes	Public-Private Relation	23	1.99	private, sector, government, business, services
Health care	25	2.30	health care act quality regulatory	Health Care	6	3.95	health, care, insurance, services, medical
<b>Total Topic Weight</b>		<b>26.86</b>		<b>Total Topic Weight</b>		<b>26.54</b>	

Table 2: Similar Topics with Top Five Terms, Topic Weight from PAR and PA Times

<i>Public Administration Review</i>				<i>PA Times</i>			
Topic Name	Rank	Topic Weight (%)	Top five terms in the topic	Topic Name	Rank	Topic Weight (%)	Top five terms in the topic
<b>Similar Topics</b>							
Public service motivation	2	5.88	Public, service, motivation, work, employees	Human Resource	3	4.48	employees, work, employee, job, workforce
Local-State Government	4	4.22	Local, government, governments, state, level	Intergovernmental Relation	32	1.49	government, federal, agencies, agency, state
Reforms	5	3.84	Reform, new, reforms, politics, training	Innovation	30	1.66	new, change, innovation, ideas, future
Comparative Study	6	3.84	States, united, state, university, comparative	Internationalization	13	3.09	world, countries, united, international, global
Leadership Strategy	8	3.32	Leadership, important, strategic, practice, strategy	Leadership	8	3.75	leadership, leaders, organization, organizational, team
Economic Development	12	3.07	Development, economic, collaboration, lessons, problems	Tax and Economy	16	2.62	economic, tax, economy, income, states
Social Capital	17	2.81	Social, community, equity, capital, media	Community Development	10	3.55	local, city, community, development, communities
Representative Bureaucracy	23	2.43	Police, bureaucracy, gender, representative, women	Social Equity	11	3.28	women, social, equity, diversity, gender

Environmental governance	32	1.41	Environmental, greater, innovation, link, firms	Sustainability	17	2.62	water, environmental, energy, climate, natural
<b>Total Topic Weight</b>		<b>30.82</b>		<b>Total Topic Weight</b>		<b>26.54</b>	

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Table 3: Distinct Topics with Top Five Terms, Topic Weight from PAR and PA Times

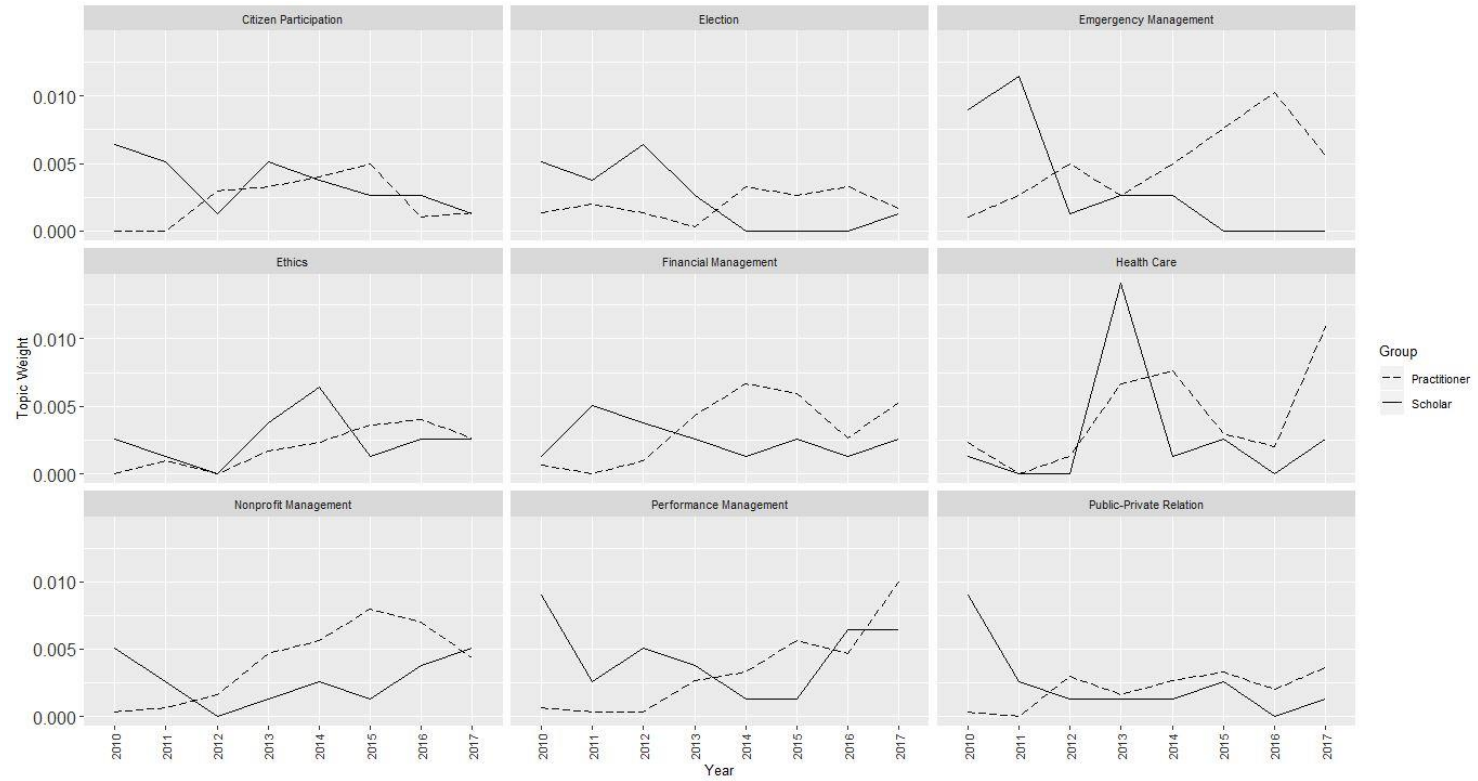
<i>Public Administration Review</i>				<i>PA Times</i>			
Topic Name	Rank	Topic Weight (%)	Top five terms in the topic	Topic Name	Rank	Topic Weight (%)	Top five terms in the topic
<b>Distinct Topics</b>							
PA Practice	1	7.29	Public, administration, field, practice, practitioners	Practical Solution	1	7.66	work, right, good, want, way
Federalist	9	3.32	Government, national, federalist, executive, good	ASPA Program	2	6.70	aspa, public, university, administration, national
Contracting-out	13	3.07	Services, service, delivery, contracting, contract	MPA education	7	3.92	students, programs, learning, mpa, experience
Collaborative Governance	14	3.07	Governance, collaborative, partnerships, systems, design	Information Technology	12	3.15	data, technology, information, new, systems
Organizational Development	15	2.94	Organizational, organizations, outcomes, diversity, culture	Social Media	14	2.92	social, media, information, use, online
Policy Implementation	18	2.81	Policy, policies, implementation, makers, place	Rule of Law	18	2.49	law, rights, court, states, laws
Public Values	19	2.81	Public, values, value, institutional, efficiency	Presidency	19	2.49	president, congress, house, American, Obama



Federal Agencies	20	2.69	Federal, government, agencies, agency, control	Law Enforcement	20	2.46	police, law, enforcement, officers, community
City Manager	26	2.05	Managers, city, role, cities, turnover	Miscellaneous 1	21	2.22	must, need, order, different, organization
Institution Capacity	27	1.92	Institutions, power, building, education, action	Education	22	2.09	school, education, schools, students, children
Network Management	28	1.92	Networks, network, relationships, learning, actors	Age	27	1.76	population, county, age, generation, millennials
Trust	29	1.79	Associated, impact, trust, levels, satisfaction	Human-Society Relation	28	1.69	human, American, society, century, world
Grant Funding	30	1.79	Program, programs, capacity, funding, goal	Miscellaneous 2	29	1.69	great, world, lives, man, image
Political Administrative Perspectives	31	1.53	Political, administrative, administrators, current, perspectives	Veteran Welfare	31	1.63	service, military, veterans, members, families
Accountability	33	1.28	Accountability, areas, expectations, way, decline	Public Service	33	1.46	public, administration, service, administrators, sector
Red Tape	34	1.28	Perceptions, rules, perceived, tape, red	Policy Study	34	1.39	research, policy, study, theory, analysis
Decision Making	35	0.77	Making, decision, decisions, complex, influence	Food safety	35	1.19	food, japan, nuclear, protected, print
<b>Total Topic Weight</b>		<b>42.33</b>		<b>Total Topic Weight</b>		<b>46.91</b>	



Figure 1: The Evolution of Topic Weight for Same Topics Shared by Scholars and Practitioners (2010-2017)



Appendix 1

35 Topics with Top Five Terms, Topic Weight from PAR

Topic Name	Rank	Weight	Top Five Terms in Each Topic
PA Practice	1	0.0729	public, administration, field, practice, practitioners
Public Service Motivation	2	0.0588	public, service, motivation, work, employees
Performance Management	3	0.0448	performance, management, information, managerial, effectiveness
Local-state Government	4	0.0422	local, government, governments, state, level
Reforms	5	0.0384	reform, new, reforms, politics, training
Comparative Study	6	0.0384	states, united, state, university, comparative
Citizen Participation	7	0.0345	citizens, citizen, participation, engagement, increase
Leadership Strategy	8	0.0332	leadership, important, strategic, practice, strategy
Federalist	9	0.0332	government, national, federalist, executive, good
Emergency Management	10	0.0320	intergovernmental, response, relations, emergency, management
Election	11	0.0320	election, market, financial, costs, terms
Contracting-out	12	0.0307	services, service, delivery, contracting, contract
Economic Development	13	0.0307	development, economic, collaboration, lessons, problems
Collaborative Governance	14	0.0307	governance, collaborative, partnerships, systems, design
Organizational Development	15	0.0294	organizational, organizations, outcomes, diversity, culture
Social Capital	16	0.0281	social, community, equity, capital, media
Policy Implementation	17	0.0281	policy, policies, implementation, makers, place
Public Values	18	0.0281	public, values, value, institutional, efficiency
Financial Management	19	0.0281	process, budget, transparency, fiscal, budgeting
Federal Agencies	20	0.0269	federal, government, agencies, agency, control
Nonprofit Management	21	0.0256	nonprofit, organizations, human, resource, nonprofits
Ethics	22	0.0256	behavior, school, ethics, ethical, schools
Representative Bureaucracy	23	0.0243	police, bureaucracy, gender, representative, women
Public-private sector relation	24	0.0230	sector, new, change, private, changes
Health care	25	0.0230	health, care, act, quality, regulatory
City Manager	26	0.0205	managers, city, role, cities, turnover

Institution Capacity	27	0.0192	institutions, power, building, education, action
Network Management	28	0.0192	networks, network, relationships, learning, actors
Trust	29	0.0179	associated, impact, trust, levels, satisfaction
Grant Funding	30	0.0179	program, programs, capacity, funding, goal
Political Administrative Perspectives	31	0.0153	political, administrative, administrators, current, perspectives
Environmental Governance	32	0.0141	environmental, greater, innovation, link, firms
Accountability	33	0.0128	accountability, areas, expectations, way, decline
Red Tape	34	0.0128	perceptions, rules, perceived, tape, red
Decision Making	35	0.0077	making, decision, decisions, complex, influence

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## Appendix 3

## 35 Topics with Top Five Terms, Topic Weight from PA Times

Topic Name	Rank	Topic Weight	Top Five Terms in Each Topic
Practical Solution	1	0.0766	work, right, good, want, way
ASPA Program	2	0.0670	aspa, public, university, administration, national
Human Resource	3	0.0448	employees, work, employee, job, workforce
Emergency Management	4	0.0428	emergency, disaster, management, response, crisis
Performance Management	5	0.0395	management, performance, organization, process, goals
Health Care	6	0.0395	health, care, insurance, services, medical
MPA education	7	0.0392	students, programs, learning, mpa, experience
Leadership	8	0.0375	leadership, leaders, organization, organizational, team
Nonprofit Management	9	0.0362	community, organizations, nonprofit, resources, collaboration
Community Development	10	0.0355	local, city, community, development, communities
Social Equity	11	0.0328	women, social, equity, diversity, gender
Information Technology	12	0.0315	data, technology, information, new, systems
Internationalization	13	0.0309	world, countries, united, international, global
Social Media	14	0.0292	social, media, information, use, online
Financial Management	15	0.0285	state, budget, financial, local, funding
Tax and Economy	16	0.0262	economic, tax, economy, income, states
Sustainability	17	0.0262	water, environmental, energy, climate, natural
Rule of Law	18	0.0249	law, rights, court, states, laws
Presidency	19	0.0249	president, congress, house, American, Obama
Law Enforcement	20	0.0246	police, law, enforcement, officers, community
Miscellaneous 1	21	0.0222	must, need, order, different, organization
Education	22	0.0209	school, education, schools, students, children
Public-Private Relation	23	0.0199	private, sector, government, business, services
Election	24	0.0199	political, elected, politics, election, party
Citizen Participation	25	0.0199	government, citizens, citizen, participation, accountability
Ethics	26	0.0192	ethical, ethics, public, code, administrators
Aging	27	0.0176	population, county, age, generation, millennials
Human-Society Relation	28	0.0169	human, American, society, century, world

Miscellaneous 2	29	0.0169	great, world, lives, man, image
Innovation	30	0.0166	new, change, innovation, ideas, future
Veteran Welfare	31	0.0163	service, military, veterans, members, families
Intergovernmental Relation	32	0.0149	government, federal, agencies, agency, state
Public Service	33	0.0146	public, administration, service, administrators, sector
Policy Study	34	0.0139	research, policy, study, theory, analysis
Food safety	35	0.0119	food, japan, nuclear, protected, print

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