Increasing governmental use of information technology (IT) in service delivery is creating an immediate need for public sector employees trained in relevant IT skills who can better provide services and reduce dependence on external contractors. This need is particularly urgent given the imminent retirement of the baby boomer generation at all levels of government, which will increase the demand for workers suited to an ever more technology-driven public sector. IT skills–based education is thus essential for successful public sector management because employees with such training are more supportive of e-government applications and more likely to contribute to the success of technology projects and initiatives (Manoharan, 2013). E-government represents the increasing use of the Internet by governments to provide information to citizens, enhance performance and service delivery, and improve interaction with the public. IT skills are particularly crucial for students of public administration and public policy who wish to be competitive in the public sector job market. This study thus assesses the emphasis that current Master of Public Administration and Master of Public Policy (MPA/MPP) programs place on these skills by analyzing syllabi from...
57 IT courses. We define IT courses as those providing the knowledge and skills for the management of information and communication applications related to computer and mobile technologies.

An important aspect of this research is the perceived gap between what the public sector workplace requires and what academic programs actually teach. Whereas prior public administration research conceptualizes the MPA/MPP skill set as continually evolving—which requires ever greater collaboration between educational programs, professional organizations, and government institutions—a trend in public administration education has been to separate what is taught in MPA/MPP programs from what is required of public administrators (Dunleavy & Hood, 1994; Grizzle, 1985; Lazenby, 2010). Public administration programs also tend to vary greatly in the skill sets they teach, leading scholars to advocate for a set of core competencies that all students in the discipline must acquire before graduation (Greenhill, Metz, & Stander, 1982). Several paradigms have been proposed to better coordinate theory and practice (Denhardt, 2001) and reform the manager-workforce relationship (Green, Wamsley, & Keller, 1993), and these are even more relevant today in assessing the degree to which academic programs are evolving to adapt to recent technological advances, thereby benefiting their graduates and soon-to-be government employees. One indicator that a gap exists between graduate IT education and practitioners’ needs is the sheer amount of IT spending waste in the public sector, which implies a need for immediate action. This article thus attempts to determine whether MPA/MPP programs have taken such action in terms of incorporating required IT competencies. If so, we ask in what ways; or if not, we ask what adaptations programs have made to meet the stated mission of the Network of Schools of Public Policy, Affairs, and Administration (NASPAA) to “continuously improve, which includes responding to and impacting their communities through ongoing program evaluation” (NASPAA, Commission on Peer Review and Accreditation, 2014, p. 4).

To answer these questions, we first position this study within the larger discourse by reviewing pertinent literature on the perceived gap between desired and imparted skills in the field of public policy, affairs, and administration. We then draw on multiple perspectives to provide a broad foundation for identifying what IT skills MPA/MPP programs teach and the changes needed (or those already being made) in the dynamic mutualistic relation between academia and practice. Research design and methodology and study findings follow. We conclude with a discussion of the implications of these findings for future research and practice.

**PERCEIVED SKILLS GAP IN PUBLIC ADMINISTRATION PEDAGOGY**

Public administration is founded on the integration of academia and practice, with emphasis on the practical applications of theoretical concepts. The field is often considered as a community of “pracademics,” involving regular interaction between academicians and practitioners (Posner, 2009). The academicians involved in public administration teaching and research tend to be highly conscious of the practical implications of their work, which “finds its most compelling and highest audience when it addresses the agenda items and concerns of practitioners” (Posner, 2009, p.13). To draw a parallel with other professional fields such as engineering and law, public administration programs must cater to the evolving workplace needs of practitioners in government and nonprofit agencies, as well as of contractors and consultants. Indeed, the emergence of nontraditional providers and the increase in privatization, contracting, and public-private partnerships challenges the traditional professional boundaries of public administration, as well as the professional academic programs (Posner, 2009). As society is becoming more complex, there is a greater need for professionals who are highly skilled, are professionally qualified, and possess a passion for public service. “Government service must be attractive enough to lure our most talented people” (John F. Kennedy, quoted in Knott, 2013, pp. 2–3).
MPA/MPP programs serve a crucial role in equipping future public managers with adequate knowledge and training in core competencies (Lazenby, 2010). Several professional organizations, including NASPAA and the International City/County Management Association (ICMA), have proposed sets of core competencies around which MPA/MPP programs should build their curricula. Although suggested competencies have changed over time, the ICMA (2015) lists 18 it deems essential for preparing students for the workforce; particularly, functional and operational experience, citizen service, performance management, technological literacy, democratic advocacy, and human resources management. NASPAA (2014) accreditation, on the other hand, requires that schools imbue their graduates with the ability to

- lead and manage in public governance;
- participate in and contribute to the public policy process;
- analyze, synthesize, think critically, solve problems, and make decisions;
- articulate and apply a public service perspective; and
- communicate and interact productively with a diverse and changing workforce and citizenry.

These skill sets, however, are only broad guidelines and not detailed curriculum roadmaps to comprehensive preparedness for the workforce. In identifying specific solutions for integrating core competencies into curricula, research has proposed that above all, public administration programs and practitioners must bridge the gap between the skills that government employers need and those taught in academic institutions. As early as 40 years ago, Engelbert (1977) stressed the need for “more cooperation between the universities and governmental agencies in carrying out the educational program” (p. 230); this recommendation has been reiterated in the public affairs education literature ever since. Yet despite a proliferation of studies on the academia-workplace gap, the separation between educational programs and professional and government organizations remains.

Grizzle (1985) offered interesting insights into the history of this vast gap; her comparison of survey data from budget directors in major American states with the syllabi in required MPA courses revealed a large deficit between what managers deemed essential for their employees and what degree-granting programs taught. This disconnect was even larger for computer-based skills, leading Grizzle to conclude that a majority of MPA programs succeeded in only covering between one third and one half of the competencies desired by the directors. Forer and Unwin (1999) commented on workers’ using technology tools without adequate knowledge of the science or concepts, which fed into the larger debate over balancing education and training. Moreover, because academics tend to favor education over training, while many practitioners lean more toward training, it remains unclear where the line should be drawn to balance both dimensions.

More recently, Lazenby (2010) elicited a list of core competencies by surveying an “expert group,” the ICMA Strategic Planning Committee and Advisory Board on Graduate Education, together with an executive-selected subgroup on performance analytics, and the organization’s board of directors. This expert group was paired with a “practitioner group” chosen from NASPAA-accredited schools, managers of local-level government organizations, and executive recruiters (Lazenby, 2010, pp. 342–343). Lazenby’s survey data identified 12 skills as essential, having average Likert values above 3 (“useful”). When these skills were compared with MPA program syllabi, 40% or more of the programs required courses with an administrative focus; however, only one fifth required technical and analytical concentrations or a focus on the legal/institutional system. Even more telling, less than 10% of the programs taught ethics, interpersonal communications, human relations, personal traits, human resources, group processes, community building, and service delivery. This contemporary research thus suggests that the gap between what practitioners need and what MPA/MPP programs teach may in fact be widening, implying that educational institutions are finding it difficult to instill the core competencies required by the workplace.
PEDAGOGY OF INFORMATION TECHNOLOGY

Among the competencies taught by graduate programs, information technology is gaining increasing attention due to the rapidly changing nature of the field. As the public sector has become more technologically driven, scholars and practitioners have been increasingly calling for public administration programs to place greater emphasis on the theory and applications of information technology and knowledge management in government. Scholars and accrediting institutions have insisted that those joining government should have a basic understanding of both IT applications and the implications of their uses (Dawes, 2004; Holzer & Lin, 2007; Kim & Layne, 2001). However, given the lack of a uniform standard for public sector IT education, the rate of diffusion is likely to be uneven. This lack of uniformity further indicates the need to assess the response of academic institutions in providing the IT education essential to current and future public administrators in an increasingly interconnected world.

Despite the conceptualization of the MPA/MPP skill set as continually evolving, as mentioned previously, in a work landscape continually changed by the expanded possibilities and shifted responsibilities brought by technological advances, no corresponding changes appear to be occurring in MPA/MPP programs and curricula. For instance, Ferrandino (2014) reported that the increasingly used geographic information systems (GIS) IT tool is not widely incorporated into academic programs, while Dawes (2004) suggested a strong link between the absence of information strategy and management-focused curricula and failing government IT projects. These IT issues must therefore become integral to educational institutions, especially given related international education reforms. Korea, for instance, has diffused IT education throughout its undergraduate public affairs programs, creating job-ready training and incentives that better prepare students for the rigors and realities of the public sector workplace (Park & Park, 2006). There is little doubt that MPA/MPP curricula should reflect the reality that IT is fundamentally transforming the functions of government. This present research thus conducts a qualitative and exploratory study on the response of MPA/MPP programs to this call for a greater IT focus in core curricula, paying particular attention to emphasis on developing programs that will assist in future workplace success as defined (although not required) by NASPAA.

RESEARCH DESIGN AND METHODOLOGY

The first step in compiling a data set with which to explore the research question was to make an exhaustive list of MPA/MPP programs in the United States and collect information on NASPAA accreditation, enrollment, and number of course sections offered for each program on the list. The resulting database of syllabi, compiled via an online search, covers 211 programs that offered MPA, MPP, or similar terminal degrees. Among these, 129 courses offered by 99 programs focused on information technologies, and 39 of these courses (30%) were required courses. A majority of these offerings (85 courses, or 66%) provided a general IT perspective, and an additional 29 courses (23%) offered a specific focus on GIS.

Next, we examined the programs to identify syllabi related to IT or e-government, resulting in 23 syllabi. We then e-mailed each program chair to obtain the syllabus for a similar course (or courses) in their program. The online search and e-mail contact netted 57 syllabi, whose content we coded based on a 10-point IT typology with NVivo, qualitative data analysis software.

The data collected included school-level information, such as region, MPA versus non-MPA,

<table>
<thead>
<tr>
<th>Programs observed</th>
<th>211</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs offering IT courses</td>
<td>129</td>
</tr>
<tr>
<td>Core IT courses</td>
<td>39</td>
</tr>
<tr>
<td>Elective IT courses</td>
<td>90</td>
</tr>
<tr>
<td>Syllabi submitted</td>
<td>57</td>
</tr>
<tr>
<td>Student enrollment (average)</td>
<td>97</td>
</tr>
<tr>
<td>Percentage of full-time faculty</td>
<td>70%</td>
</tr>
</tbody>
</table>
number of sections taught, percentage of courses taught by full-time faculty, and number of students in the program. Programs differed considerably in size, from an observed minimum of 12 students to a maximum of 396, with an average enrollment of 97. The amount of full-time faculty utilized by these programs ranged from 12% to 100%, with 70% of an average program's faculty employed in full-time positions. The universities whose programs contributed syllabi were in cities across all population ranges: 11 programs were headquartered in cities with a population of less than 50,000, 11 were in cities with a population of 50,001–199,999, 9 were centered in municipalities with a population of 200,000–500,000, and 14 were in cities with greater than 500,000 residents. Programs in the South (Alabama, Arkansas, Florida, Georgia) contributed the largest number of syllabi, followed by those in the Midwest (Illinois, Michigan, Minnesota, Ohio, Wisconsin) and mid-Atlantic regions (District of Columbia, Maryland, West Virginia). States with large populations (California, New York, Texas) were also better represented in the syllabi database. Figure 1 shows the number of IT courses per state.

NVivo enables analysts to directly codify and annotate documents, as well as combine an array of documents into a database. We used the software to establish the number of mentions and the percentage of syllabi dealing with each IT competency in our 10-point IT typology, through a set of automatic text searches. To ensure accuracy, we evaluated the results of the automatic searches for error, and we manually browsed the full text of each syllabus to ensure that no material was excluded. We used NVivo because our database contained full-text quotations for each type of IT education. The software is able to code syllabi in editable and non-editable formats in the same fashion. NVivo’s reports are also intuitive and include percentages of syllabi covered and number of observations present, allowing this study’s results to be replicated or adopted in future research.

The 10-point IT typology represents the most commonly mentioned IT concepts observed in public administration education, based on a focus group discussion involving practitioners and academicians. These terms include GIS, cybersecurity, social media, big data, cloud computing, crowdsourcing, e-government (service provision
and e-procurement), privacy and confidentiality, digital divide (accessibility), and infrastructure (Figure 2). We coded each line of a program’s syllabus using a 3-point scale: no IT content, one type of IT content, or multiple types of IT content. Then, for each syllabus, we recorded the number of mentions of each IT type and the percentage reported. The results show that the number of forms of IT education offered in these syllabi ranged from a minimum of 1 to a maximum of 10 types; on average, each syllabus focused on slightly more than 3 different types of concepts.

RESULTS AND DISCUSSION
As shown in Figure 3, a majority of the 57 courses (31, or 54%) included an e-government (service provision and e-procurement) component, while 25 (44%) and 23 (40%) covered privacy and infrastructure concerns, respectively. This was followed by cybersecurity, GIS, and digital divide issues, having scores of 20 (35%), 19 (33%), and 19 (33%), respectively. A small share of the syllabi (15 programs, or 26%) mentioned social media; 11 (19%), big data; 9 (16%), cloud computing; 2 (4%), crowdfunding. Table 2 shows the scores and rankings of the IT competencies, along with their coverage in core courses and number of observations.

The IT concepts included in core courses ranged from a low of 45% (big data) to a high of 67% (cloud computing). Crowdfunding (50%), social media (53%), and privacy (56%) topics were offered in half or more courses observed, while GIS (63%) and cybersecurity (65%) topics were offered in slightly less than two thirds of the courses. The IT competencies varied in their frequencies observed in the syllabi. Readings, coursework, and mentions
about crowdfunding were observed 3 times in the data set; e-government, 113 times. Discussions of cloud computing (11), big data (16), and digital divide (23) concerns were infrequently observed. The most frequent range for IT concerns was between 40 and 50 observations in the data set, for example, GIS (43), privacy (46), infrastructure (48), and cybersecurity (49). There were 58 observations of social media topics.

About a third of the syllabi included GIS—the creation, manipulation, and presentation of geographic data—which in public administration can be used to showcase rezoning risks, increase the efficiency of emergency services, and visualize demographic groups and land use. GIS education was thus coded in terms of real-world GIS applications and emerging technologies: map digitization, familiarity with ArcGIS and related software suites (ArcCatalog, ArcMap, ModelBuilder), modeling and spatial analysis, and the ARIES database. Our analysis revealed two types of GIS instruction: a week or two on GIS combined with discussions of other IT types or a class devoted solely to GIS. The former were overwhelmingly in-department courses (within the MPA/MPP program), while the latter were jointly offered with the Geography Department.

We classified cybersecurity, which was required reading in 20 syllabi, according to the protection level of computerized data. Thus, data breaching refers to unintended releases of personal data that occur “from a variety of security incidents including hackers breaking into systems or networks, third parties accessing personal information on lost laptops or other mobile devices, or organizations failing to dispose of personal information securely” (Culnan, 2011, p. 1228). The terms cyberwarfare and cybercrime designate the use of information technologies to gain some benefit from an organization or government; cyberwarfare is conducted exclusively by countries or their agents (Clarke & Knake, 2014), and cybercrime manifests as illicit activities over the Internet. A major focus of the IT-themed syllabi was security policies and risk manage-
ment, which cover information access and modification, appropriate data storage, safe tradeoffs, and appropriate steps to be taken in the case of a breach. One major concern for scholars of jurisprudence is government surveillance of data, especially when federal and local or state laws differ.

Big data—the analysis, collection, and archiving of traditionally unmanageable amounts of data (Desouza & Benoy, 2014)—was reflected in the syllabi by discussions of data analytics, data volume, or the collection and maintenance of or rights related to data collected by an organization. Such readings, assignments, or prompts appeared in 11 syllabi. Likewise, cloud computing—the uploading and downloading of documents to an online hosting service such as Dropbox or Office 365 for access from a remote location—was referenced in 9 syllabi, primarily in terms of ramifications of physical storage location, amount of access, and rights distribution. Crowdfunding—the raising of funds directly from individual investors (via a service such as Indiegogo, Kickstarter, or GoFundMe)—is a relatively new phenomenon in the public sphere. However, it can manifest as civic crowdfunding by citizens or groups seeking raise operating funds for initiatives like parks, pools, or area beautification (Hollow, 2013; Zuckerman, 2014). Terms representing this phenomenon were observed in only 2 syllabi.

In contrast, 31 syllabi exhibited an e-government focus. The concept of e-government captures coursework on service provision, e-procurement, and online interactions between government and its citizens or between various levels of government. A major topic in the current e-government discourse is service provision, defined here as citizens’ ability to use an online portal to apply for assistance, pay utilities, report crimes, register for licenses, and/or contact government representatives. E-procurement, on the other hand, is an organization’s ability to purchase services and supplies online. Although all syllabi included discussions on access to personal data, citizen privacy rights, and the sharing of private data between organizations, 25 syllabi specifically covered privacy and confidentiality, topics that have become a major source of contention as the amount of data created by each government-citizen transaction has increased. These syllabi referred specifically to the sharing of government services, unauthorized access to information, institutional compliance with confidentiality laws, and the conflict between an “open Internet” and the right to privacy.

### TABLE 2.
IT Competencies Scores and Rankings

<table>
<thead>
<tr>
<th>Rank</th>
<th>IT Competencies</th>
<th>Number of Courses (out of 57)</th>
<th>Percent of Courses</th>
<th>Percent Core Courses</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E-government</td>
<td>31</td>
<td>54</td>
<td>60</td>
<td>113</td>
</tr>
<tr>
<td>2</td>
<td>Privacy</td>
<td>25</td>
<td>44</td>
<td>56</td>
<td>46</td>
</tr>
<tr>
<td>3</td>
<td>Infrastructure</td>
<td>23</td>
<td>40</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>4</td>
<td>Cybersecurity</td>
<td>20</td>
<td>35</td>
<td>65</td>
<td>49</td>
</tr>
<tr>
<td>5</td>
<td>GIS</td>
<td>19</td>
<td>33</td>
<td>63</td>
<td>43</td>
</tr>
<tr>
<td>6</td>
<td>Digital divide</td>
<td>19</td>
<td>33</td>
<td>47</td>
<td>23</td>
</tr>
<tr>
<td>7</td>
<td>Social media</td>
<td>15</td>
<td>26</td>
<td>53</td>
<td>58</td>
</tr>
<tr>
<td>8</td>
<td>Big data</td>
<td>11</td>
<td>19</td>
<td>45</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>Cloud computing</td>
<td>9</td>
<td>16</td>
<td>67</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>Crowdfunding</td>
<td>2</td>
<td>4</td>
<td>50</td>
<td>3</td>
</tr>
</tbody>
</table>

A. P. Manoharan & J. McQuiston
The topic of the digital divide and accessibility was covered in 17 syllabi and included issues ranging from obstacles related to sight, vision, or physical limitation to the availability of Internet-capable computers, computing resources, and public education on computer resource utilization. Syllabi that addressed such digital divide and accessibility issues referred specifically to the concerns of older populations, the difficulty of navigating antiquated governmental information services, and variation in computer ownership among high- and low-income families. Infrastructure—the overall coordination of an organization’s information technologies, the workforce that uses them, the software that runs them, and the connections (real and virtual) between system resources—was mentioned in 22 syllabi. Syllabi discussions included software implementation, transitioning between programs, performance measurement of information technologies, best cases in IT rollouts, worker IT education, and using IT to assess overall organizational value.

BEST CASES

We selected two courses from the syllabi pool that reflect the best cases of meeting the call to bridge the teaching-practice gap in public affairs and administration.

Course A, offered by a Midwestern research university, focused on GIS, data systems, e-government and e-procurement, security concerns, and the use of technology to reduce the effects of the digital divide. Course assignments require students to explore information technologies and the online presence of an organization and to evaluate the costs and benefits that will accrue for an institution that adopts a data system. Additional topics explored through a discussion board include the effectiveness of e-government initiatives, threats to cybersecurity, issues arising from third-party contracting of IT services, data storage and analysis, end-user privacy concerns, large-scale IT implementation, and how IT tools can reduce the digital divide. Overall, this course provides ample opportunities for students to familiarize themselves with organizational IT issues, and the syllabus incorporates general topics important to public administration practitioners (e.g., purchasing, workflow optimization, financial planning).

Course B, offered by a major research university in the West, covers a broad array of IT topics, including e-government, planning and budgeting for IT expenses, big data, crowdfunding and crowdsourcing initiatives, best cases in IT implementation, and organizational policies for social media and mobile technologies. The course includes discussions of cybersecurity, privacy, legal issues related to IT usage, and the factors that make IT projects successful. Assignments require students to discuss data security issues; explore the increasing amount of data collected by organizations; showcase institutional uses of cloud computing; and create an IT policy that addresses the drafting, rollout, and performance measurement phases. Classes include guest lectures by practitioners, both administrators and software developers from the public and private sectors. The syllabus stipulates a number of learning objectives for each course section and is arranged in modules to allow for easy modification in subsequent offerings of the course. Overall, the course offers breadth and depth by requiring students to expand on the IT education initiated in class, and familiarizes them with major IT topics before they join the workforce.

CONCLUSION

The primary aim of this article is to close the teaching and practice gap in current public administration literature: the gulf between the core competency ideal of providing what practitioners want in their workers and traditional conceptions of only one form of IT education. Our study addresses the first step in such research by examining the current emphasis on IT skills and competencies in MPA/MPP programs. Our findings, based on a content analysis of observed syllabi, indicate that a considerable number of programs do offer some form of IT education and that those not currently doing so are considering them for the future. More specifically, we identified 10 forms of IT education being provided in MPA/MPP programs in the United States. The syllabi analyzed vary greatly in depth and specificity; those that provide a full list of
readings and research prompts are more likely to include one or more IT competencies than those that only mention general week-to-week topics. This study clearly identifies a variety of IT components being taught in public administration programs, even though NASPAA removed the IT requirement from its standards for institutional accreditation because of the subject area’s diffuse focus.

At present, the most common IT topics in program syllabi relate to technologies and concerns that have been around for decades and/or that represent issues with an offline component (e.g., service provision, GIS, privacy). Syllabi give comparatively less focus to newer applications in public administration (e.g., social media, big data, cloud computing, crowdfunding). However, as the public sector increasingly addresses concerns like privacy, security, and standard operating procedures, this trend is bound to change: more and more, practitioners will use new technologies and require new hires to be familiar with their applications, implying that MPA/MPP programs will have to accord such topics greater space in their IT-themed courses. Thus, public organizations that want to safeguard the data they collect should seek graduates from programs that focus on cybersecurity, big data, and privacy concerns. Similarly, municipalities with large income disparities or budget shortfalls would do well to procure workers who are well educated on the digital divide and know how to conduct successful crowdfunding campaigns and increase response rates using social media profiles.

The lack of a uniform standard in public sector IT education contributes to the uneven and slow diffusion of IT courses among MPA/MPP programs, and accrediting institutions should address this variability. MPA/MPP programs would benefit from the addition of IT courses to their program core curricula, which over the last 30 years have responded to similar calls for inclusion (Brudney, Hy, & Waugh, 1993; Grizzle, 1985; Leip, 1999; Mergel, 2012; Park & Park, 2006). As suggested by Dawes (2004), to better prepare students for IT-heavy positions, degree-granting programs can discuss privacy and access concerns within policy analysis courses or can incorporate software obsolescence and migration costs into budgeting courses. Similarly, e-government and IT topics can be incorporated into management courses related to strategic planning, performance measurement, and organization management. Such approaches will enable public administrators to implement IT initiatives using a strategic framework that aligns e-government goals to the organizational mission and focuses on regularly measuring and improving e-government performance (Manoharan, 2013). Cross-discipline courses are another means of providing public administration students with experience that department faculty may not be able to offer. Additionally, lectures in information technology and management should be included in introductory courses to provide all students with baseline IT knowledge, along with opportunities for interested students to specialize in IT (Dawes, 2004). Although some programs and scholars may hesitate to disrupt curricula to support these additions (citing the old adage, “If it ain’t broke, don’t fix it”), research evidence on the academia-workplace gap suggests that some things may well be broken. If so, then although adding coursework to existing programs may be onerous (Rocheleau, 1998; Saint-Germain, Ostrowski, & Dedé, 2000), programs should not consider it an insurmountable challenge.

This research constitutes an early examination of the typology of IT course content in public affairs and administration education (not including instructor course notes or the specific content of course readings). Although the generalizability of our findings is limited, as the data set covers only U.S. programs, the proposed typology would be easily applicable to similar studies on graduate programs in other nations. Future research might examine how the teaching of IT in MPA/MPP programs differs based on program location and time frame. Generalizability is also hampered by the limited analytic time frame, which encompasses active syllabi only from 2009 to 2015. As IT technologies are continually in flux, the same trends might not be observable in courses
taught before the start point of data collection or in classes conducted after 2015. Future research could also expand its scope by examining variations in different course sections. For instance, an initial comparison of two sections of the same course revealed that whereas one syllabus went into considerable detail on a weekly basis and discussed 7 of the 10 types of IT topics, the second syllabus covered only 2. A small number of programs provided information about the same IT course taught by different instructors in different semesters, reflecting the likelihood that as courses with an IT component continue to be taught, the multiple iterations of a syllabus taught by several instructors will only increase. As such information become commonplace, researchers might seek further insights from a vertical examination of syllabi over a set time period.

This research proposes a unique typology for IT education in public administration and identifies that MPA/MPP programs more commonly teach topics related to privacy, service provision, infrastructure, and cybersecurity in preparing students for an increasingly technology-oriented workplace. However, what the academic programs offer and what practitioners desire differs; most common IT topics being taught have had a traditional off-line component, while there is comparatively less emphasis on tools with recent applications in public sector organizations. This study finds that information technology has become a convenient catch-all term for scholars, educators, and policy makers alike, producing an overly simplistic framework for a complex phenomenon. There is a need to establish a uniform standard for IT education in MPA/MPP programs, and this research provides a useful baseline for examining IT competencies in public affairs and administration education. Additionally, a specific research focus on IT requirements for practitioners would allow comparison of what MPA/MPP programs teach with what the workforce needs. The overall framework of this study provides effective guidance for instructors, researchers, practitioners, and students in bridging the teaching-practice IT gap that exists in public administration education.

REFERENCES


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