

Theory to Practice

Commentator

Article

Authors

Dr. Costis Toregas is an internationally known expert on information technology (IT) applications in the public sector. He was one of the early contributors to the establishment and growth of Public Technology Inc. (PTI). He is currently the IT adviser to the Montgomery County, Maryland, County Council, where he oversees the annual investment of more than \$300 million in IT systems and services. He is also a founder and principal of the Global Consortium for Sustainable Solutions (GCSS), as well as an adjunct associate professor in the American University's Department of Public Administration and Policy where he teaches public-private partnership strategies and IT strategies for public administrators. He is also an adjunct faculty member of the School of Public Policy and Public Administration and a lead research scientist of the Computer Sciences Department of the School of Engineering and Applied Science of the George Washington University. He is a fellow of the National Academy of Public Administration.

E-mail: toregas@american.edu

Dawes, Cresswell, and Pardo offer a welcome and wonderful addition to the practitioner side of the *Theory to Practice* bridge. As the authors posit, many public administration problems are becoming at least tangled if not outright wicked.

Public Administration Review

Costis Toregas

IT Adviser to Montgomery County (MD) Council

From "Need to Know" to "Need to Share": Tangled Problems, Information Boundaries, and the Building of Public Sector Knowledge Networks

Sharon Dawes, Tony Cresswell, and Theresa Pardo

May | June 2009

Volume 69 | Number 3

Many practitioners would be hard pressed to describe the difference between these two types of problem, but they would readily agree to the elusive nature of sustained solutions to most of the issues that crop up daily in their inbox. The experience of the authors with the six case studies which they use to build their observations on public sector knowledge networks (PSKNs) is invaluable and gives the article quick credibility and relevance.

Although the authors implicitly assume that the creation of PSKNs is a good but operationally challenging response to the existence of wicked problems, it would help if this linkage were made more explicit and rationalized using empirical observations from the various projects used to draw their major conclusions. In this way, practitioners reading this article could identify the problems prevalent in their jurisdiction and link those to problems the authors identify. Practitioners might then more easily be able to accept the need and virtues of creating PSKNs as a

response to their own tangled or wicked problems.

There are some obvious areas on which one can build an online discussion and dialog thread for this *Theory to Practice* exchange. They deal with four major themes, and I will use the same four themes to organize my own response. They are: the framework of the PSKN, the researchers' experiences with the six projects, the 13 lessons they summarize from these projects, and, finally, some areas which the authors did not address which they might do as a response to the online dialogue that might emerge after this publication.

The PSKN Framework Reconsidered

The introduction to the article's title is catchy: *from "need to know" to "need to share."* The "need-to-know" mentality of command-and-control systems is indeed being replaced in many instances. However, these go far beyond merely a "need-to-know situation." We could have "need to use," for example, to underscore the existence of many unused or underused databases, or "need to automate" to remind the reader of the dominance of paper records for many government agencies. Moreover, once we get beyond the "knowing what we know and knowing what we don't know," we are also confronted with the devilish "not knowing what we don't know," and in this context, an open and collaborative approach nurtured through a PSKN may be the only way forward!

In addition, the emergence of PSKNs is presented as a response to the need for collaborative information sharing. However, the ultimate objective of the modern administrative apparatus is not to share information collaboratively but to take collaborative action based on shared information. It is interesting to recast the article's findings on this

higher plane. One would quickly discover that many of the findings, lessons, and suggestions still persist and can be used in this more fruitful level of need. Since public needs must be dealt with by more than information and knowledge, such a list would include shared cross-boundary leadership, as well as shared actions and shared incentives. The restless and innovative practitioners are ready to pick up the pace and go beyond sharing knowledge to sharing actions—how can the research community help them pick up the pace? The Dawes, Cresswell, and Pardo article is an excellent first step, once it reflects this higher tier of applicability.

The authors' recognition that most problems are about governance, not IT challenges, is also an essential observation. They may have brought out the empirical foundation for this statement a bit better (which can be readily accepted but would be strengthened through some actual examples). Too, care has to be taken to remind *PAR* readers that problems do not belong to agencies or sectors but depend on agencies and sectors for their resolution. The linkage between problem and information/knowledge is also sometimes misunderstood or underappreciated by practitioners and scholars, and this article helps redress this gap by suggesting several ways that this linkage can be made more explicitly.

These positive aspects of the PSKN framework notwithstanding, there are three basic elements of PSKNs that the authors propose that need refining. First, the authors correctly note that *PSKNs are within the capability of astute builders*. It would be helpful to mention examples of such builders. My personal favorite is John Koskinen as he steered the nation through the challenges of the Y2K problem with minimal centralized staff and authority but with an extremely robust intergovernmental PSKN network that was

constructed and used to perfection. Camille Barnett (with Rodriguez 2006a, 2006b) has written on managing networks and suggests several of her personal experiences with this style of PSKN management. Putting a face next to the idea of a network builder would help the reader appreciate the need for such inspired personal leadership.

The authors also suggest important *lessons that can help builders*. Beyond lessons, however, the authors should fill the broader void posed by the lack of applicable research (editors' note: please see other commentaries for guidance). They might have done so by suggesting an actual construction mechanism for needed action. By this, I mean identifying the vocabulary, syntax, grammar, and, ultimately, the full spectrum of PSKN actions so that the practitioner community can learn and implement them.

The authors also correctly contend that *political leaders and public managers must develop skills of sharing knowledge in networks*. My own experience from observing and participating in such networks tells me that these skills are in place and routinely used—but perhaps not in a visible manner. Boundary spanning has become the norm of public sector problems; Don Kettl's (2009) new book, *The Next Government of the United States*, suggests that something has indeed changed and no one executive is any longer in charge of any given problem (if they ever were). The importance of actions at the boundary between governmental stoppipes is huge. One is reminded of the Babel fish in Adams's (1979) *The Hitchhiker's Guide to the Galaxy*, which, when placed in your ear, would live there and translate any form of language for you. What is the equivalent "Babel fish" for the different levels of government or different agency stoppipes within levels? The ability to listen, translate, and integrate those views in cross-

boundary solutions is important, and the authors would have enhanced the value of this article by expanding a bit on the nature of such "translator" resources (editors' note: please see the longer e-version of this article for suggestions).

The final elements of the PSKN framework offered by Dawes, Cresswell, and Pardo involve *the important concepts of trust, sharing, and privacy*. Given the pervasive acceptance of networking tools (sometimes called social networking tools) such as Facebook and Twitter, the people who are governed by the laws and administrative procedures of public administration are changing their perspectives on these important issues. In fact, researchers may be surprised to find that privacy values will be very different a few years from now. My 22-year-old son has a totally different perception of what should be private and what should be shared than I do, and his perspective will have many more years to influence the system of government than mine. I make this observation not to promote the use of social networking tools in government (a topic of some interest to many researchers) but rather to say that these network tools are shaping new expectations among citizens which are not yet well understood. PSKNs must be flexible and able to accommodate these massive shifts in public perception and expectations regarding knowledge sharing so that what they develop is in step with reality.

Experiences with the Six Projects in Broader Perspective

The six projects chosen for review are a slice of reality that presents different functions and problems but always with strong cross-boundary opportunities. As I was reading them, I found myself wishing that these descriptions went into more detail: What were the project goals? Their budgets? The politics with the IT vendor community? For-

tunately, much is available to *PAR* readers in the extended e-version of the article on this website. It will help readers understand better what the authors obviously have mastered and condensed very efficiently in the hardcopy of this article in *PAR*, but I would still have wanted more.

The article mentions that structured IT systems are ineffective in transferring knowledge and information from one organization to another. This is a very important and interesting finding which should be highlighted with explicit empirical observations (editors' note: please see extended e-version of this article). The current marketing approach of IT firms, in fact, promotes the use of IT systems to accomplish this transfer of knowledge. Consequently, the authors' insights could be helpful in the procurement phase of actual IT projects by providing government representatives some areas of "pushback" and negotiation with the IT provider community. In addition, it leads one to consider using ill-structured systems (e.g., "fuzzy systems" or "forgiving algorithms") when constructing cross-boundary systems.

Words like trust, legacy systems transitions, and values that differ between various stakeholders are essential to the intent of the authors to explain PSKNs, and the "13 lessons" section tries to address their importance. However, while Dawes and her colleagues clearly understand the importance of business process reengineering (BPR) to moving successful IT implementation forward, it is not referenced strongly enough in the examples cited. Because of the difficulty of undertaking reengineering efforts in a network environment, it is important for the authors to help the reader prepare for such efforts as they discuss the six projects.

Finally, the authors infer that diversity of data sources, uses, and users may not satisfy

the care and effective feeding of PSKNs; I would argue that diversity is not inherently bad—in fact, it may make systems healthy and robust in a Darwinian sense! What has to be consistent is an agreement for metadata formats, as well as a robust and adhered enterprise architecture set of standards.

The Thirteen Lessons Revisited

My first reaction after reading the lessons section is that 13 lessons are too many to present. It may be constructive to condense and consolidate them to no more than half as many so that people will remember and put them to good use! As such, rather than react to each lesson offered by Dawes, Cresswell, and Pardo, here are some general thoughts stimulated by the otherwise excellent list of considerations they offer:

- The research underlines the importance of social interaction among participants over extended timeframes in order to build collaborative networks of knowledge sharing. This is a devastatingly important reminder in light of where IT systems are taking us today. After all, they involve faceless interactions over increasingly short timeframes.
- In addition to the imperative to interconnect databases, there is another far simpler imperative that could be referenced. The tragedy of "silent" or "orphaned" databases which exist in all governmental agencies is that masses of stored data that are never accessed by staff or citizens and are simply captured, stored, and forgotten. Given government's increasing role as an information provider and the role of information in effective service delivery, it is important to promote the use of PSKNs in waking up and giving voice to unused silent or orphaned data.
- There are many "golden nuggets" interspersed throughout the lessons the

authors' offer that could simply be aggregated under a title such as "Strategies for Successful PSKN Leadership." I would nominate the following for such a list:

- o Metadata standards are important to use (in the GIS project, they were shared *before* actual GIS data standards were ever discussed).
- o Build trust through financial incentives, training programs, and grant-funded demonstrations, which help to encourage small but positive engagements that move programs forward.
- o When trust is low, transaction costs rise (and I would add the inverse: if you want to reduce transaction costs, develop a trusting environment and reduce the administrative watchdog expenditures).
- o Higher levels of government tend to oversimplify and underestimate the needs of lower levels. Be prepared to lobby aggressively to avoid this problem by showing how self-defeating under-resourcing can be.
- o Top barriers to the creation and health of PSKNs are funding, ambitious goals, and different organizational priorities. Anticipate these issues and devise strategies and tactics for coping with them.
- o In complex projects, officials should be sure that policies, business rules, and associated work processes precede the specification of an information system.
- The role of law as obstacles and/or facilitating factors in changing boundaries and empowering PSKNs is an interesting point that the authors raise. I would love to hear more regarding their argument for a legal approach. I have always assumed that boundaries in the

public sector exist not only in mental models we carry around in our minds but also in law and in tradition. Law can change through legislative action but tradition is even more insidious. It is ignored at policymakers' peril but accepted at even greater peril!

- The danger spot of mistrust across agencies has an easy resolution: the citizen perspective, which is not strongly covered in this article (editors' note: please see extended e-version of this article, as well as similar points raised in the other e-commentaries). I believe that a citizen-centric model of PSKNs would strengthen and improve the authors' vision and provide a far more flexible and sustainable model for moving forward. In addition to staff interpretations of cross-boundary feasibility and desirability, the citizen/taxpayer would be asked to contribute ideas and perspectives that government officials would formally document and be in a position to respond, implement, and satisfy when feasible.
- The notion of promoting a separate entity that would articulate and carry out the functions of any PSKN should be expanded so that it is not the only option available to decision makers. Dwight Ink, speaking about the development of PSKNs in earlier decades to react to national disasters such as the Alaska earthquake, once said that the power of the network should be vested in its nodes (personal correspondence with author circa 1995). In other words, action should flow through the individuals and their agencies that come together to work collaboratively, rather than through a new network with separate legal status. This point is worth considerable debate and research on its own—debate and research that I hope this exchange will afford.

- The current economic crisis is expected to last several budget cycles. It may be useful to consider the role of this economic crisis in encouraging collaboration. If there is a role, are there mechanisms that might gestate projects of a cross-boundary nature or will it become more difficult to act in such a manner?
- People skills scored high as predictors of positive outcomes for PSKN leadership in this *PAR* article. It would be useful to see any empirical data that may present these critical success factors in a quantitative manner. Practitioners would be grateful to find solid evidence of skill sets that they should look for in this increasingly networked workplace we call public administration!

Some Final Thoughts

Speaking from the perspective of a practitioner, Dawes, Creswell, and Prado have offered a timely and rich contribution that an online dialogue on *Theory to Practice* will help flesh out. The article—and especially its extended e-version on this website—offers many excellent points and provides good guidance to practitioners and academics alike. On the research side, the robust definition of a PSKN is a useful step in developing a frame of reference for subsequent dialogue and additional studies that can help bring out needed outcomes of scholarship and analysis. To the authors' interesting list of new directions, I would add the following things for researchers and practitioners to consider:

- Where should the center of collaboration be optimally located organizationally in order to sustain PSKNs and improve service delivery quality? Should the center of collaboration be within one of the participating organizations? Should it be a standalone new entity?

What are preferable governance models for maximizing their public value?

- The Quicksilver IT projects undertaken by the federal government in the last decade were all intended to boost collaboration and share knowledge models. Their analysis, side-by-side with the state and local experiences chronicled by Dawes and her colleagues, would make an interesting foundation for an intergovernmental study. Such a focus promises to provide comprehensive answers to questions of PSKNs at different government levels.
- The use of proper incentives can define success or failure of a network. The possible use of incentives in funding formulas, as well as grant selection algorithms that favor collaboration, could provide a beginning point for a comprehensive look across all strategies for PSKN support.

References

- Adams, Douglas. 1997. *The Hitchhiker's Guide to the Galaxy*. New York: Del Rey.
- Barnett, Camille C., with Oscar Rodriguez. 2006a. *Connections Matter: Using Networks for Economic Development*. Washington, DC: Public Management, ICMA, March, 10-15.
- . 2006b. *Connections Matter: Using Networks for Improved Performance*. Washington, DC: Public Management, ICMA, June, 22-25.
- Kettl, Donald F. 2009. *The Next Government of the United States: Why Our Institutions Fail Us and How to Fix Them*. New York: W.W. Norton & Company.