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Ken Winter at VDOT:

KM/Knowledge Services = Innovation, Opportunity, and Influence

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If good management is results-focused and opportunity-focused, as most of us believe it is, then the folks at the [Virginia Department of Transportation](#) are managing well. And succeeding in their efforts.

This is an agency – the largest state agency in Virginia – that has learned what happens when KM is not part of the picture. Now thanks to foresightful leadership and a wise decision to combine the classic elements of knowledge services – information management, knowledge management, and strategic learning – into an organizational KM/knowledge services framework, the agency (also known as “VDOT”) finds itself positioned to meet the challenges confronting it. VDOT functions as a knowledge culture.

Of course there is no guarantee (how can there be, in this economic environment?) that the agency’s KM/knowledge services framework will be that much sought-after “silver bullet” we’re all looking for. But the agency is moving forward, and its KM/knowledge services framework is part of that progress.

Change of this magnitude has not, of course, been easy, and it is not yet complete. Still, to move from an organization publicly recognized as desperately in need of repair to one so highly esteemed that its KM/knowledge services customers include the U.S. Secretary of Transportation is a remarkable transition, and it is still going on. It’s a terrific story, and with people like Ken Winter aboard, VDOT is definitely headed in the right direction.

Winter is in charge of VDOT’s library and information services operation, a position that, as it turns out, is one of considerable influence in the larger organization. He clearly subscribes to the idea that knowledge has a role in society to support the common good, and that – in the workplace – the benefits of the knowledge development/knowledge sharing process (KD/KS) support organizational success.

It is a refreshingly optimistic point of view and one that is never more needed than in the current environment. Frankly, taking a look at what’s being done at VDOT gives us all much room for optimism.

“The work we are doing at VDOT is part of the solution,” Winter says. “Change is being forced in all parts of society today, and coming to us from all directions. Here at VDOT, we see these changes as providing us with huge opportunities.”

Winter's management responsibility is focused on the [VDOT Research Library](#), which is itself part of the [Virginia Transportation Research Council](#) and functionally falls under the [VDOT Knowledge Management Division](#). The unique organizational structure explains – at least in part – the success of the library in meeting its service-delivery responsibilities in the KD/KS process. At VDOT, innovation and client support are the drivers, and it is VDOT's KM Division that is doing the driving, so much so that this year the Harvard Kennedy School's Ash Institute for Democratic Governance and Innovation selected the VDOT KM program as one of 15 finalists in its 2008 Innovations in American Government Awards competition. The citation states that, at VDOT, knowledge management supports the agency in achieving its mission by strengthening VDOT's ability to share critical knowledge and experiences to improve ongoing processes and products. The relevance of that description becomes apparent as Winter talks about the library's role in the Research Council and at VDOT.

“Our job is to keep our market apprised all the time,” he says. “We deal with shifting priorities on an on-going basis, and VDOT depends on us to meet its service delivery and knowledge asset management needs.”

Which means that, for Winter, it becomes important to recognize what he calls the people perspective, (“people power” is another way he describes it). It is what he has identified as the value of forming a strong bond with colleagues throughout the agency and in doing so, creating a strong imprint on the organization and, in particular, with its research staff.

“The objective,” Winter says, “is to encourage a culture of sharing, to put in place whatever is required to enable KD/KS from an agency-wide perspective. The sharing has to take place, but that was not always the case since for many years the picture had been — as in many government agencies — one of many fiefdoms having been built up, regional silos, that sort of thing.”

Winter's success in changing that picture is evident in the annual assessment produced by the VDOT KM Division. The numbers are there, and they strongly substantiate the recognized role of knowledge services as the practical side of KM. In fact, the “direct indicators” – as they are called in the assessment – clearly demonstrate that the management and service-delivery model in place is a robust one, and one that is totally results-focused. All transactions are characterized as “in response to specific information requested by VDOT customers, with each one representing an improvement in VDOT productivity or decision making.” Needless to say, equally impressive are the narratives, the story-telling that goes along with the numbers.

There's more, though, and it is here that you get the picture that the KM/knowledge services structure at the Research Library is paying real dividends. In what the KM Division assessment document refers to as “indirect indicators,” we see that library staff are truly serving as knowledge catalysts and knowledge thought leaders for VDOT and, it should be noted, for the larger profession as well:

Members of the library staff are influencing the transportation environment, serving in influential positions on national committees, and orchestrating partnerships with the Transportation Research Board, the National Transportation Library, and a group of 20 transportation libraries in AASHTO Regions I and II (the entire East Coast). The VDOT Research Library serves as a role model for other DOTs and transportation libraries nationally. ... [and] it is interesting to note how many transportation professionals worldwide are accessing the library system. The system is set up to monitor usage and this year there were 3,361 visitors from other agencies, including a who's who of transportation research institutions in the U. S. and abroad. In addition, there were 304 visits from libraries in 44 different foreign countries and territories.

How it all came about could be a case study in how to achieve success in KM/knowledge services.

Despite many changes in the VDOT as an agency, change did not necessarily come easily. Indeed, although change was obviously required, it was pretty clear that VDOT was not, in the phrase Rosabeth Moss Kanter famously used, a “change-adept” organization. And that was the environment in which the Research Library was situated and expected to function. There had been a library since 1954, from just a few years after the council had been established as the research arm of VDOT, and all along, the Research Council itself had been well known and generally well staffed. The library, though, had not evolved, and by 2002 there was a need to take a new look at the Research Library, which at that time was under the management of a part-time solo paraprofessional, who came in a day or two a week.

“Despite the fact that there was a great collection in place,” Winter says, “no one knew about it. So I was brought in to create an online catalog, since there was no automated library record-keeping. As part of that work, I soon realized that a pretty major change in direction was called for. I saw that I would have to figure out how to use standards to bring the library into the world of research, and I also realized that one of my big jobs was going to be to change the way people feel about sharing knowledge. One of the great pleasures of coming into a place where there has been only limited attention to library record-keeping is finding missing materials, but what I found was that knowledge-sharing wasn’t even thought about. People were hoarding materials, and they felt very possessive about what they were hoarding.”

So how did he move forward? How did he fix the knowledge-sharing (or the *lack* of knowledge-sharing) problem?

“Well, I just took a very gentle and cautious approach,” Winter says. “Almost immediately, I realized that people would resist ‘giving up’ what they thought of as ‘their’ materials, so when we identified unique material that someone used, we simply cataloged it and left it where it was. I took a very liberal approach to library management. I didn’t – and still don’t – want materials to be thought of as being locked away.”

The payoff – as Winter takes great pleasure in describing – was a “groundswell of support” among the researchers, a circumstance not hard to understand.

“The research activities at the council were widely recognized,” he says, “and the researchers had built up a tremendous reputation for their work. Once they realized that what we were doing in the library would strengthen their work, they were right with us. We soon even found we were adding private collections to our inventory, just to get the records out there so all staff could access these materials.”

It was a pretty savvy political approach, but when asked where or how he acquired his political skills, Winter admits he isn’t so sure.

“I came to VDOT as a freshly minted reference librarian from a small college, the Virginia Military Institute,” he says. Then he laughs a little, “As for the politics of the organization, I was clueless.”

He obviously figured things out pretty quickly, though, perhaps because of that early decision to be careful. He didn’t want to overwhelm the organization and his clients by doing too much too soon.

“I didn’t want to move too fast,” he says, “but that wasn’t so easy because my personal style is to just get moving.... I don’t do too well ‘talking’ about things. I need to be ‘doing’ things. But once I started looking around, I got a pretty clear picture of the organizational environment. So I decided that I would

take the first year just to listen and learn about the researchers and their needs. And, like any manager in a new situation, I also had to spend a considerable amount of time predicting the ROI on tools, dealing with budget decisions, acquisitions, and all of that sort of usual detail, but I concentrated hard on what we might accomplish, what we *could* accomplish. That seemed to do the trick, and I guess I was successful because I was eventually able to get the staff increased from 1 FTE to 5.5 FTE.”

Throughout this development, Winter understood that there was a connection between library management and KM/knowledge services at VDOT and the Transportation Research Council, but it was not clear, early on, just how that connection would transition into a strategic structure. The library as a business unit of the agency had been built on a very traditional basis, and had remained so for nearly fifty years. Winter’s challenge was to make operational changes, “to get the house in order” as he describes the process. In doing so, though, there would be another benefit: Winter also recognized that he needed to understand VDOT research, to have that “big picture” we all speak about so much. Strengthening the KD/KS process would surely result in better knowledge asset management – Winter was sure of that – and working with researchers to identify their own priorities while their library resource was being improved would make for a lot of happy colleagues. But how would he pull it all together?

Do we believe in serendipity?

Perhaps we should, for the solution at the VDOT Research Library came in a change that would seem, at first glance, to be one that can surely be described as serendipitous: Philip Shucet becomes the head of the agency and hires Maureen Hammer with a specific charge: “create a knowledge culture in a state agency” (see [Thinking Community: KM/Knowledge Services at VDOT](#)).

And when that serendipity connects to having a library and information services director in the midst of restructuring the Research Library – bringing the knowledge services elements of information management, knowledge management, and strategic learning together to create an agency-wide strategic framework for KD/KS – it provides for a collaborative arrangement that fits right in to the establishment of VDOT as a knowledge culture. With the Research Library as part of the new Knowledge Management Division and with the recognition that the broader subject of transportation “touches all aspects of life and society,” as Winter himself describes his subject field, his restructuring effort would also be utilized to move the agency itself away from traditional information, knowledge, and strategic learning methodologies to a very high-tech systems-operations approach.

It worked, and despite Winter’s “gentle and cautious” approach in his first year, once he got into the swing of things, this was a man who was moving fast. So fast, in fact, that by the end of his second year at VDOT, he was named the Research Council’s “Employee of the Year” – a commendation repeated four years later. And at the end of his fourth year he was awarded the agency’s highest recognition, the Commissioner’s Award for Outstanding Achievement, for helping the VDOT Research Library create and deploy its first library automation system.

So what happened? What did Winter do?

For one thing, if we take the Research Library as a point of departure and look at some of Winter’s comments about “new ways of working,” he determined that the library had a responsibility to be more than a “library,” as a library as typically understood in the public perception. For the Research Council and its library, the immediate concern – in keeping with Winter’s personal philosophies about responsibility and service delivery – was that the resource right at hand was too important and too valuable to *not* be put in front of potential users.

Thinking Community: KM/Knowledge Services at VDOT

Imagine an organization, a state agency – a really big state agency with perhaps some 11,200 employees and affiliated workers. Management is hit with a number of crises. In fact, the state's governor has used exactly that word – “crisis” – to describe the situation. The agency, according to one press report, “was reeling from the loss of key personnel, had promised projects it couldn't afford, four of every five projects were behind schedule, and half were over budget.” Simply put, these were situations in which having a strong KM/knowledge services operation would have prevented – or at least mitigated – much of the problem. Something had to be done about managing knowledge.

Now imagine that same governor – it happened to be Mark Warner, Virginia's Governor from 2002 to 2006 – appointing a leader for the agency, which happened to be VDOT. The agency's new leader was a man by the name of Philip Shucet, and one of the first things he wants is a strong KM program for VDOT. He doesn't know a lot about knowledge management, he says, but he knows the agency needs KM and needs it quickly.

Now imagine one more step: Shucet hires a Ph.D. knowledge management specialist, a person who is already a state employee with a master's degree in library science, and he says to Maureen Hammer: create a knowledge culture.

And that was it. Not imaginary at all, as it turns out.

Hammer and Shucet's goal was simple: VDOT would become a state agency structured as a knowledge culture, with all that that implied in terms of knowledge development, knowledge sharing, and strategic learning. How would they do it, this collaborative team? At the risk of oversimplification - for it wasn't simple at all - the first step was to build communities of practice. And right from the get-go they knew they needed one CoP in particular, a community of practice made up of the managers of the agency's megaprojects. These were, as it turned out, people not generally accustomed to sharing – knowledge or anything else – with anyone. Hammer had to use all the tools in her KM toolbox to get things going, and she had to do it – at Shucet's command – within one month.

But that kind of pressure didn't put Hammer off. She told Shucet what she wanted to do, and his response was just what she expected to hear: “Fabulous,” he said. “Do what you need to do.”

It wasn't easy, for with all the talk about down-sizing, budget cuts, and other problems being continually enumerated, trust in the agency was at a low point and the idea of a “community” for that particular CoP was a bit of a reach. But Hammer kept at it. She brought the project managers together for confidential meetings, persuaded them to open up to one another, to talk about best practices, lessons learned, improved processes, and similar topics, all topics they all knew a lot about and when pressed, realized that it was knowledge they should be sharing with one another.

The result? As Shucet put it, “Just putting them together turned out to save what must have been hundreds of thousands of dollars,” and Hammer picks up the story: “They started calling each other, finding out very explicit things like who to talk to about this need or that situation. But they also found themselves sharing tacit knowledge, learning more about strategic planning, say, or how to keep delivering while the economy goes into melt-down. It was a remarkable experience, with the KM process identified and recognized as very neutral and, it should be said, very supportive of the work they were doing.”

And as KM began to take hold throughout the agency, it became clear that CoPs would be one of the most significant applications for KM at VDOT. Even the press got into the picture, with an editorial in *The Richmond Times Dispatch* noting that VDOT's CoP model had some 40 CoP “teams focused on an issue or a process, not on a region or a department” and cutting across geography and job function “because so does the work and so do the problems, and no solution will work unless everybody buys in.” Another published commentary referred to Hammer by name, describing her as one of “a new breed of government employee” for bringing the concepts of effective knowledge use from the private to the public sector, with the recommendation that this be the new paradigm for doing business in a state agency.

“This stuff is too good,” Winter says, referring to what he was working with, “and we needed to move from being a library for researchers to being a resource for the entire agency. It was massive opportunity for the agency. And for us.”

So Winter put his brain to work, and in collaboration with Hammer and Shucet, one of the most successful changes for the agency might have been – indeed, probably was – their success in re-thinking the role of the library and its professional staff. We've already considered Winter's success in strengthening the researchers' understanding of the critical role of the Research Library in their work,

but there was more: Winter changed the way the library staff itself works, having library employees “stretch” their work from librarianship to analysis. Whereas in the past the Research Library had focused on passive “knowledge keeping” (i.e. “what is in this room is in this room”), the research organization – indeed the larger agency – could not function with such a limited service delivery perspective. They all had to think bigger.

As Winter tells it, “VDOT is the largest state-run agency in Virginia and the library is required to support senior management totally in their work. It is not unusual for management to require specific information, information that must be worked with in an extremely short-term timeframe. These people have great responsibility, managing very costly construction projects, and a tremendous level of trust is required throughout the agency. But particularly with information supplied by the Research Library, they require data analysis, visualization, gap analysis, that sort of thing, a very high-level picture relating to their information and knowledge requests.”

Winter continues, “Previously this kind of activity would not have been part of the library’s work, and in fact the staff would have been lost if asked to do this kind of work. But as it turned out, with this kind of need, the library was given the opportunity to develop capabilities.”

Having built those capabilities is a point of pride for Winter, and he likes telling about one in particular.

“With our Research Summary Bibliographies program, for example, we basically craft a customized overview for a sense of the subject, and then we bring in additional resources. Our goal is to make the RSBs – as we informally call them – attractive and digestible to high-level executives. But we weren’t totally altruistic. We wanted something, too. We wanted to provide the opportunity to grow the library and its services the way the agency needed it to grow, as a point of reference.”

Were they successful?

“No question about it,” Winter says, and his delight in his accomplishment is evident in his voice.

But he is also quick to offer an element of caution.

“You have to be careful. Undergoing such a transition is not for the faint-hearted,” he says, noting that as the library moved into its “evolutionary period,” as he refers to it, “there were plenty of times we were wondering just what we had gotten ourselves into. But the return on the investment has been tremendous. Just the value of the RSBs alone has been proven to us many times over. Our fellow employees – and especially our management executives – couldn’t work without them.”

Even with that cautionary note, Winter is obviously having great success managing the library and information services operation. He is doing it, incidentally, as an off-site employee, since he and his wife and their small boys were brought to Lincoln, NE a year ago, as a result of a change in his wife’s professional career. So he directs the activities of the VDOT Research Library as a full-time teleworker and, not surprisingly for anyone who knows Ken Winter, the move has not slowed him down one bit.

Still, Winter is quick to acknowledge that the VDOT Research Library, the Knowledge Management Division, and, indeed, all of VDOT are facing enormous challenges, challenges that will force every employee to re-think his or her professional role. For one example, when we look at how the agency is funded, we see a revenue model that some characterize as “fatally flawed.” More than 90% of VDOT revenue support is based on tax generated from the sale of gasoline, but there has not been an increase in the gasoline tax since 1986.

Then there are political issues, simply because society is changing, with most people not thinking about the fact that midway through 2008 (for the first time in the history of the United States), people were starting to drive less instead of more, a situation far different from the well-remembered oil crisis in the 1970s when people drove less, but the amount of driving they did only hit a plateau, with driving increasing again when the crisis ended. Now Americans are actually driving less and the question must be asked: What does this mean for an agency like VDOT, combined with a heightened awareness in the larger culture about the costs of driving and the impact of driving on the environment? Will these conditions change the research picture in transportation?

The other scary challenge is of course the economic one, the one we all keep thinking about. VDOT, like every public agency, is now required to lay off staff and/or eliminate positions, and these conditions naturally affect individual departments and functions. On July 1, 2009 a new state law went into effect in Virginia, cutting VDOT staff – which had been as high as 11,200 employees – to 7,500, with current staff picking up the slack. Winter and Hammer are cautiously optimistic because, as they put it, they manage a part of the agency that exists to “help people out,” to collaborate and work with people who must resolve their information, knowledge, and strategic learning needs (which statement in itself, perhaps, is a good definition of KM/knowledge services). From his perspective, despite the current stress, Winter says “it’s important to step back from the crisis and think about how this might be an opportunity to think about what we do. We have no choice but to radically change what we do, and working in a knowledge culture gives us the tools to do that.”

For Hammer and the KM team, there is a natural fit with the VDOT Research Library, a point Hammer makes frequently and enthusiastically. When the new KM Division came into operation, one of the first goals was to allow the library to retain its own identity within the division, and it was established from the beginning that – just as the KM Division was told to “do what needs to be done” – the library had support to do what it had to do.

And why not? As Hammer puts it, “KM and the library are two sides of the same coin. For VDOT, it’s all about research, but the library also serves as the knowledge nexus, and the two come together in managing knowledge assets, whether those assets are tacit – the focus of the KM Office – or explicit, as handled through the Research Library.”

What they’ve done – Hammer and Winter – is to make conscious and direct efforts to build a knowledge sharing culture. They had to start with creating trust, understanding vulnerabilities, and recognizing limitations, but they won’t permit any barrier or impediment to be anything other than temporary. They have their vision of what VDOT’s KM/knowledge services is going to be, of what VDOT is as a knowledge culture – and they are more than willing to take the agency there.

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