LIBRARY LEADERSHIP & MANAGEMENT

Collaboration in White Spaces: Librarians as Leaders in Evidence-Based Practice at CAM Institutions

Janet Tapper, Richard J. Severson, Noelle Stello, and Della Shupe

Introduction

Organizational change guru Geary Rummler coined the term "white space" in the 1960s.[1] White space refers to the uncharted landscape of an organization, where the real work usually gets done. We are all familiar with the boxes and vertical reporting lines of the traditional organizational chart. But those official charts leave unspoken how people often work between departmental silos, forging situation-inspired horizontal partnerships in order to solve problems and get things done. When viewed as complex (living) systems, organizations have fluid-like boundaries that constantly change as ecologies—from the micro-ecologies of individual departments and employees to the macro-ecologies of industries and cultures—shift and evolve. The white space is like the channel of a wild river; one day it appears in one place, the next day it has shifted as it adapts to changes in its environment. An adaptive organization cannot be held to one channel or map (the organizational chart). It must be in touch with its unbounded circumstances, creating cross-functional partnerships in order to be productive and engaged in the real world which is rarely static.

In the turbulent eddies of white space, unconventional opportunities for leadership present themselves. Employees who are not leaders on the organizational chart can find themselves working with other employees that are not linked by department or other functional category. The situation may call for leadership, but there are no rules or charts that stipulate who that should be or how it will play out. So what happens next? How does a white space leader emerge?

In this paper, we argue that white space leadership is a common trope for librarians at schools of Complementary and Alternative Medicine (CAM) – specifically, accredited institutions with programs in chiropractic, naturopathic, or osteopathic medicine, as well as acupuncture and Oriental medicine. We describe the experience of librarians at nine CAM institutions that were awarded NIH Research Education (R25) grants. These librarians were invited to participate in a breakout session at the 2010 Symposium for Portland Area Research on CAM (SPARC), and this paper is the result of that work.

Our case focuses on the introduction of evidence-based practice at CAM institutions. Evidence-based practice (EBP) is both a research agenda and a skill set. On the agenda side, CAM needs to follow the lead of conventional medicine and conduct scientific research that tests the efficacy of their clinical practices, and use that research to build a body of evidence (a literature) that can be accessed by clinicians and others. How to access the research literature, and then use it to inform clinical decision making, pertains to the research skill set part of EBP. This is obviously where what librarians typically

do—teach information literacy skills—interfaces with EBP research. Library instruction provides the context for our argument.

We set the stage in a first section below by providing some background on the state of research at CAM institutions. In the next section we will provide a bit more background on the study of leadership. How does our notion of white space leadership for librarians fit into the research literature on the subject? Finally we get to the heart of the matter where the unique cases of librarian leadership at three different CAM institutions will be presented.

Research and R25 Grants at CAM Institutions

CAM research in this country is in its infancy. Although the number of published studies is growing steadily, they are still relatively scarce compared to conventional medicine. Part of the reason for this, of course, is that conventional medicine had a significant head-start in modern medical research. But there are some significant factors perpetuating the situation. For example, there is a relative scarcity of trained researchers qualified to conduct CAM research. CAM, for its part, presents unique research challenges. Conventional research methods, developed to study a single intervention in a controlled population, are less well matched to treatments that rely on combinations of therapies, are individually tailored to the individual patient, and may rely on the practitioner/patient relationship. Probably the most basic issue, however, is funding: CAM research represents just a tiny wedge of the medical research funding pie, and funding drives the solution to these other challenges.

Fortunately, the funding picture is improving. A major shift occurred in 1992 when Congress established the Office of Alternative Medicine (OAM) within the National Institutes of Health (NIH). At that time, survey data suggested that roughly 1/3 of adults in the United States were using CAM.[2] Consumer demand, coupled with a healthcare culture that increasingly demanded evidence, gave rise to the OAM, whose purpose was to coordinate and fund research into unconventional therapies. With a tiny budget and staff, the OAM was limited in its ability to support much beyond pilot studies.[3] At the same time, this move into public funding of CAM research proved to be a pivotal moment, and funding has increased with each passing year. The OAM survived and secured increasing funding with each passing year.[4] Twenty years later, the OAM has expanded into the National Center for Complementary and Alternative Medicine (NCCAM), with a budget of over $127 million, sustaining numerous research grants and partnerships.[5]

Soon after NCCAM's inception, the new Center announced a funding opportunity aimed at encouraging the integration of CAM and conventional medicine. Initially the effort was directed toward conventional medicine, supporting initiatives to include information about CAM in the curricula of selected medical, nursing, allied health, and residency programs . A second grant program, announced in 2004, focused on CAM schools. Called the CAM Practitioner Research Education Project Grant Partnership program, this award was developed to increase the quality and quantity of research content in the curricula of programs training CAM practitioners. The goal was not to train researchers directly, but to foster awareness and understanding of evidence-based practice principles among CAM practitioners.[6] A total of nine institutions received these research education R25 grants between 2005 and 2010.

Librarians are natural partners in efforts to train healthcare professionals in evidence-based practice. This grant program provided a common opportunity for librarians at participating CAM schools ("R25 librarians") to deepen their involvement in EBP, research support and education. For several years, however, there was almost no grant-related communication between the various institutions' librarians. This changed in 2010, when librarians at the National College of Natural Medicine hosted a grant-funded gathering of R25 librarians in conjunction with the Symposium for Portland Area Research on Complementary and Alternative Medicine (SPARC). The two-day event included a pre-conference forum for R25 librarians to share stories and experiences, a continuing education class, and a breakout session that brought librarians, faculty, and administrators together to discuss the role of librarians in research literacy. The potential of librarians to effect change was captured in the event title: Librarians as Leaders in Evidence-Informed Practice.

Leadership

Like research in complementary and alternative medicine, the scientific study of leadership is in its infancy. Prior to the mid-20th century, the dominant perspective on leadership was the "great man" theory that had been around for centuries. According to that traditional theory, leaders are born with character traits, such as courage and confidence, that predispose them to rise above others. After it became the subject of more careful study, leadership theory was initially dominated by a debate about the relative significance of the person as leader versus the situation or context in determining leader effectiveness. Many theories and models have been developed that attempt to provide more nuanced understandings of how leaders and the situations or contexts in which they operate actually function interdependently. The Vroom, Yetton, and Jago contingency theory of leadership is an example. They investigated the decision rules that leaders tend to follow in different types of situations. Their research found that leaders tend to be autocratic in their decisions when the situation requires unanimity from subordinates, and more participative in their decisions when subordinate acceptance of an outcome is not an issue of concern.[7]

Some of the more recent research on leadership takes a qualitatively distinct turn away from the management driven research of the past. Rost, for example, argued that leadership is a phenomenon in itself that has yet to be defined or studied properly.[8] In the past, what was studied was not leadership as such, but what leaders need to do to be good managers. But leadership as such is a relational phenomenon, a process more than a characteristic of people or situations.[8,9] Uhl-Bien and others have argued that focusing on the priority of relationality in the study of leadership leads to a new research paradigm that is more complex, qualitative, and systems oriented than the typical quantitative management driven studies of the past.[10] Leadership carries ontological weight in this perspective, which means that coworkers participate in a leadership experience that generates its own unique characteristics and roles for participants. This relational leadership experience is much more than a manager's skill or tool, and in it there are no followers, just leader-collaborators.

Understood in this relational context, leadership is a classic "white space" phenomenon. According to Bradbury and Lichtenstein, it is in the space between colleagues, in their interrelatedness, that the real work of a complex organization happens.[11] This white space of the interrelated generates interesting

possibilities for collaboration outside of normal organizational structures. It is a boon for librarians who typically have not been given leadership positions on the organizational chart of CAM colleges.

We will use a specific definition of white space leadership (inspired by Rost's definition, with adaptation[12]) to discuss the leadership roles of librarians at our respective institutions in the next section: ***White space leadership is a relational activity that generates unanticipated organizational intention(s) to change matters of mutual purpose to the collaborators.*** The key concepts in this definition are (a) relationality: the occurrence of leadership as an event or activity must arise through the mutual influence of the collaborators; (b) unanticipated organizational intention: this kind of leadership event must happen in the fluid white spaces that are not acknowledged in the official organizational structure, which means that it cannot be anticipated prior to its actualization; (c) intention to change: leadership requires intention for real substantive change, not idle talk or incidental change; and (d) mutual purpose: there must be something that all parties to the leadership event are vitally interested in, otherwise the "relational between" reality that is leadership will not come into being.

This definition of leadership fits CAM librarian experience with EBP initiatives for many reasons. Perhaps most obvious is that EBP looks like a library instruction exercise. From a librarian's point of view, EBP mimics a librarian's approach to teaching research skills. First, you develop a good research question; then you go to the literature to see if there is sufficient research material to answer your question; finally, you weigh the value of what you found based upon the type of resource it comes from. That is the gist of both library instruction and EBP. So there is a potential alignment of purposes between medical educators and librarians that has created unique white space leadership situations at CAM colleges.

Another reason why white space leadership fits CAM librarian experience so well is because of the shift away from discipline-centered curriculum design in medical schools. At least since the Flexner Report[13] was published early in the 20th century, medical schools (including CAM schools) built their curricula around separate discipline specific departments. Students took classes in the various science and medical disciplines, taught by experts, and then they had to figure out how to apply that knowledge base in their clinical training. That old discipline-centered curriculum model is being replaced by outcomes-based curricula that feature integrated coursework that crosses disciplinary lines; more collaborative instruction; and more thought about how to prepare students for the real world problems they will need to solve. This shift in curriculum design and pedagogy plays to librarian strengths and interests. Librarians' work involves taking a professional interest in the research activities of other disciplines, which forces them to be collaborative team players in their teaching and to focus on real world skills (how to search the MEDLINE database, for example). This shift toward outcomes curriculum design creates more potential white space leadership opportunities for librarians.

A third reason for CAM librarian white space leadership opportunities has to do with the research department phenomenon at CAM schools. At the typical higher education institution, research happens in every department as chemists, sociologists, philosophers and other faculty engage in their own research agendas. There may be centralized research support mechanisms to help with funding and so

forth, but research is distributed throughout the faculty, not centralized in one department. At most CAM colleges, on the other hand, there is a centralized locus of research in one research department. There are a number of reasons for this unique situation. Historically, CAM schools came to be as clinical training centers, not research or academic institutions. Faculty typically self identify as clinicians, not scientists or academics. So research departments have the task of creating a research agenda where there was not one before. And they have the task of creating interest in research amongst a faculty that in the past might have been suspicious of scientific research because of an implicit western medical agenda. The need to build collaborative partnerships makes the CAM research department a strong candidate for white space leadership opportunities.

Science of Singularity: CAM Library Experiences

In his classic investigation of how ordinary people use tactics to subvert and control the powers that be in everyday life, Michel de Certeau engages in a "science of singularity" that highlights the unique qualities of individual experience. Only then, he argues, can the contextual complexity of everyday life that has been largely ignored by the epistemology of science become a proper subject for serious study.[14] There is an obvious parallel to the often complex, multi-factoral treatments of CAM physicians which do not easily conform to the standardized control protocol of scientific medical research. Less obvious perhaps is the singularity of each CAM institution, and the singular opportunities for librarian leadership and collaboration at each institution. In this section, we will briefly describe the unique circumstances that unfolded at three different CAM institutions, using the definition of white space leadership as a common touch point.

National College of Natural Medicine

The National College of Natural Medicine (NCNM) is a private, nonprofit graduate medical college, founded in Oregon in 1956. Currently, the college enrolls approximately 600 students in four different programs (Doctor of Naturopathic Medicine, Master of Science in Oriental Medicine, Master of Acupuncture and Master of Science in Integrative Medicine Research). NCNM is both programmatically accredited and regionally accredited by the appropriate Department of Education (DOE) sanctioned organizations. The NCNM story of librarian white space leadership regarding the introduction of evidence informed practice (EIP)[15] revolves around several significant events leading up to and including the R25 grant.

The first significant event in the story pertains to regional accreditation. NCNM did not achieve regional accreditation until the first decade of this century. Prior to that, its affiliation with the DOE was mediated by its programmatic accrediting bodies. It was in the candidacy stage for regional accreditation that library instruction became a topic of interest at NCNM. Early site visitors from other colleges and universities recommended that a library instruction program be developed. Prior to that, there was no formal connection between the curricula and the library. So this recommendation from the Northwest Commission on Colleges and Universities (NWCCU) created the groundwork for the "unanticipated organizational intention to change" that later would lead to relational leadership opportunities for NCNM librarians.

The library staff installed its first version of an instruction program by participating in a required case-based learning class that all first year students were required to attend. Librarians were given 2 hours to provide an orientation to the library's resources and to demonstrate how to use basic online resources, PubMed in particular. Initially, there were no course outcomes or assessment measures for this instruction. It was a start, however, and librarians have been attuned to the opportunities for more systematic instruction ever since.

The second significant event pertains to the development of a research class. Several years ago the research department began offering an introductory research course in the naturopathic medicine curriculum (which later was adapted to fit the different needs of the Chinese medicine program). The purpose of the course was to introduce students to the often unique methods and tools of research in CAM, and to prepare them for working in the research department on projects of their own interest. As many as 100 students wanted to do research at NCNM in any given year, so this course was developed in part to manage and train the growing number of students wanting to do research. There was a library instruction component to the course from the beginning—specifically, how to use PubMed and construct a search term—but it was not taught by NCNM librarians until the associate librarian met with the research director and offered to take on that responsibility. That was a key white space leadership moment for library staff because there was an unanticipated organizational intention to change matters of mutual purpose (to improve student research skills).

The white space opening between the research department and library regarding the new research class was unanticipated in part because the recommendation to develop a library instruction program from the NWCCU was not widely understood on campus. The research department had its own core problems to solve (how to train 100 students, etc.) and the educational role of the library was not on their radar. This is a common problem that Hardesty and other academic librarians have commented on over the years.[16] Most college administrators have a sense of benign neglect toward library instruction; it has been an overlooked aspect of curriculum development at most colleges.

The third significant event leading up to the R25 grant and librarian white space leadership pertains to the introduction of outcomes based curriculum design at NCNM. A 2-day workshop for NCNM faculty and administrators on how to write outcomes and design a curriculum was attended by librarians who developed a keen interest in this type of curriculum model. They recognized early on how writing outcomes on information literacy, for example, could meet their goal to embed library educational skills across all curricula. The opportunity to write would come later as part of the R25 grant.

Finally, then, it is the R25 grant that created the full blown opportunity for librarian white space leadership. At NCNM the research department decided to create a vanguard faculty group to lead the effort to disseminate the principles of EIP throughout the faculty and curricula. The vanguard faculty is based on an early-adopters model of dissemination. The selected early-adopter faculty were sent for training to the Rocky Mountain Workshop. The research department also set up a short course where the early-adopters could turn around and share their training with others and among themselves in refresher courses.

Librarians were not included in the initial cohort of vanguard faculty at NCNM. Again, this could be an artifact of the "benign neglect" mentioned above. Librarians readily see the alignment of purposes between EIP and library instruction, but others often do not immediately see the connection. It took some coaxing, but one librarian was included in the second vanguard cohort. That librarian fulfilled her vanguard faculty responsibilities so well that now all library staff have been invited to join the vanguard faculty group and participate in short course training. Clearly, this was a white space leadership moment.

One of the overarching goals of R25 grants is to enhance the research culture at CAM schools, and to promote EIP principles across all curricula. At NCNM, this curricular mandate was manifested in the vanguard faculty work of writing a set of research literacy outcomes that will eventually be embedded in every college program. The effort to create this set of outcomes was led by the associate librarian. Being an academic librarian, she was able to use the Association of College and Research Libraries (ACRL) standards for information literacy as a resource. The other vanguard faculty were unfamiliar with ACRL and the legacy of 40 years of professional engagement with the issue of information literacy and library instruction. With the ACRL Standards as a guide, the Vanguard Faculty developed a set of six research literacy outcomes tailored to NCNM's mission and culture, which was approved by the college's governance structure.

At NCNM, the research department and the library found common purpose and the unanticipated intention to change the organization in the white space created by the curricular mandate of the R25 grant coupled with the NWCCU recommendation to enhance library instruction. The relational activities engendered by this fusion of horizons became authentic leadership experiences in which librarians played a crucial role.

University of Western States

University of Western States is a private nonprofit graduate school offering regionally and professionally acredited programs including Doctorate of Chiropractic, Masters in Exercise and Sports Science, Masters in Human Nutrition and Functional Medicine and massage certification. UWS traces its roots back to 1904 and D.D. Palmer, the founder of chiropractic. In 1994, then Western States Chiropractic College, became the first CAM college to receive a federal research grant for a low-back study. This study set a benchmark for practice-based research, a key component to the legitimization of chiropractic and other CAM research going forward. Ten years and several federal research grants later UWS was in the first round of funding for the R25 NIH grants in pursuit of an expanded curricular role for evidence-based practice and research literacy.

The grant writers made a pivotal decision in inception. Skills training in EBP and advanced information literacy would be extended to the entire clinical and chiropractic faculty. The grant writers considered and then rejected the trickle down theory that early adopters would inspire broader participation; wholesale cultural refresh was ultimately at the heart of this plan.

When the grant commenced in early 2005, the library suggested and was given the opportunity, using ethnographic qualitative study techniques, to interview the entire faculty in order to benchmark the

current amount of coursework that could be construed as evidence-based skill building as well quantify the amount of evidence-based resources for faculty personal scholarship. This was the White Space opportunity for the library to listen to the needs and concerns of faculty and begin an ongoing dialogue that continues to inform library practices and offerings.

Early on there was recognition that if EBP and the underlying information literacy skills were to be integrated further into the curriculum it would need to be a seamless part of the ongoing instruction. There simply would not be time for added library sessions in the jam-packed curriculum, so faculty would need to add research literacy to their fields of expertise and integrate it within their courses. To accomplish this goal it was necessary to bring some faculty up to speed on electronic search techniques and characteristics of campus databases without creating a drag on their time.

To accomplish this the library experimented with an electronic course module to provide the entire faculty with baseline fundamental skills in electronic search and retrieval as well as EBP concepts and definitions in preparation for advanced lectures in biostatistics.

In Situational Leadership jargon we found that the online trainings rapidly moved faculty back to a high task maturity level in terms of their search and discovery skills. This in turn created a demand by faculty for greater efficiency of full-text retrieval and the ball was placed squarely in the library's court. What began to emerge was an ongoing dialog between the library and faculty to resolve and improve access. Reaching out past the org chart and into the wider academic community the library virtually expanded the print collection by partnering with the area medical, naturopathic and acupuncture schools through a shared online catalog by means of a LSTA grant awarded to the UWS library in 2006.

These White Space conversations between the faculty and the library shifted the approach to information literacy instruction beginning with a reevaluation of classroom presentations and a study of best practices for electronic course modules. What we found roiling in the White Spaces was a subtle but remarkable phenomenon: Library staff found that they now shared a more common vernacular and cohesive world view with instructors; creating more meaningful assessments of information literacy presentations in terms of relevancy to assignments and pertinence to evidence-based curriculum objectives.

In response to feedback from faculty users the library tore down and rebuilt its basic online information literacy instruction course to be customizable to varying info lit skills and as such is now appropriate for incoming students and new faculty. Library instruction is now geared to be responsive to course syllabi, supportive of assignments and format agnostic. Data collection on electronic searches and full text retrieval (as well as elevated gate count) happily provides evidence of an increase in resource usage since grant implementation.

Further examples of White Space collaborations include:

- A new faculty and clinician training program in EBP methodologies (biostatistics) that includes librarian led "bricks and clicks" tours that is now codified in HR orientation.

- "Information Literacy Competencies for Evidence-based Healthcare Practitioners" was co-written by the campus librarian and the dean of clinical education.
- All incoming students meet with a librarian for 10-20 minutes insuring that students are not only aware of library resources but also of librarians as resources.
- Library develops and conducts ongoing faculty trainings in specific databases, citation management systems and web 2.0 tools. The permeation of this cultural shift became apparent when these trainings with the library staff substituted for departmental meetings.
- Journal club- style courses in late quarters allows students to practice study analysis. Library contribution to this program includes lectures on post-graduate information gathering.
- The library staff are contributors versus owners of much of the advanced information literacy/EBP online classes.

Saturation of IL activities across the curriculum habituates and reinforces key skills required of modern clinicians. Inclusion of the library throughout implementation of the R25 grant goals assured utilization of the campus information professionals' expertise. Their perspective helps to inform the faculty training process and guide meaningful curricular information activities and assignments. In return this allowed the library focus to grow, adapt and reconfigure its resources in concordance with the demands and expectations of not only born-digital students but a faculty reinvigorated and confident about their research and discovery processes.

As delivery of information becomes more coherent through library improvement and the faculty grows their skills through ongoing training and experience, expectation of student skills matures in a cyclic process that cements changes to the culture. This serves to create a self-sustaining culture where faculty and clinicians look to the evidence to inform their instruction, scholarship and patient management, a culture that knows how to ask the right questions, assess their own answers and seek the appropriate partners across the organizational charts. Critical to these was the persistent and consistent collaboration between the the grant inceptors/implementers, the faculty, and the library leaders all working together across the White Spaces.

Northwestern Health Sciences University

Northwestern Health Sciences University (NWHSU) is a private, nonprofit university in the health sciences. It was founded in Minnesota as Northwestern College of Chiropractic in 1941 and became a university in 1999. The university enrolls more than 800 students in three colleges that (separately) offer a doctor of chiropractic degree, two masters of science degrees in oriental medicine and acupuncture, a professional certificate and an AAS degree in massage therapy, and a bachelor of science degree in human biology. Northwestern also offers a master of health sciences in clinical radiology, in clinical orthopedics, and in clinical nutrition. Each program offered by NWHSU is programmatically accredited, and the whole university is regionally accredited by the North Central Association's Higher Learning Commission.

Northwestern's professional library staff has offered some form of library instruction for more than 25 years. Librarians have faculty contracts and have usually taught students bibliographic or information literacy skills within various content courses. One of the courses team-taught by a librarian was called Critical Appraisal of Scientific Literature. Two research department faculty members, with the participation of the current library director, taught this course, eventually called Evidence-Based Healthcare. The experience was an opportunity for the relational aspects of leadership, within white space, to provide the foundation for later leadership roles.

It was almost a decade later that the research department applied for the R25 grant. The Director of Library Services was first asked to write a letter of support for the grant application. Her involvement after the grant period began took continued efforts on her part. This included participation in early focus groups that were conducted with students and faculty members. It also meant seizing opportunities, such as an appointment to the team whose purpose was "to develop and implement a research curriculum to enhance CAM students' evidence-informed practice (EIP) skills". The student research curriculum has now been completed (although it is always being developed) and is called Foundations in Evidence Informed Practice. It is taught to all chiropractic, acupuncture and oriental medicine, and massage therapy students. Although the librarian provided content for online learning modules for the EIP curriculum, she was not one of the initial instructors. This was an example of the "benign neglect" that was mentioned earlier, reinforcing the point that "librarians readily see the alignment of purposes between EIP and library instruction, but others often do not immediately see the connection..."

The Director of Library Services has also been appointed to the team that now coordinates the faculty development piece of EIP. The EIP Online Learning Series was comprised of two tracks, the first requiring the completion of 6 EIP modules, and the second requiring the completion of all the online learning modules. (Several modules have been updated, and several have been added. There are nearly 30 modules at last count.) Faculty members are required to complete track 1 and are encouraged to complete track 2 of the learning series. R-25 Grant goals were accomplished early and have been exceeded for faculty compliance. After they have completed both tracks, faculty members may wish to participate in more in-depth development efforts by taking 12 sessions of Research Scholars I and II. The Faculty Development team screens faculty applications and recommends which faculty members should be selected to participate in Research Scholars. This team also coordinates some of the Faculty Conferences, which offer Research Scholars the opportunity to present their projects to their peers.

Ongoing efforts with faculty and students have included use of the online learning modules as a component of faculty development of EIP competencies across the curriculum, as well as an information literacy curriculum component developed by librarians for a chiropractic course, "Introduction to Clinical Reasoning." The librarians are interested in expanding this component to the acupuncture and oriental medicine students, and eventually to the massage therapy students.

The librarians are also involved in the EIP Instructors group where they act as a resource and participate in developing the skills needed to facilitate evidence-informed practice and efficient use of research by students, CAM practitioners, and faculty members. The Wolfe-Harris Center for Clinical Studies and the

Greenawalt Library also partner to provide new evidence-based resources for CAM students, faculty, and practitioners.

The Director of Library Services has also been appointed to CAM Education Executive Team. The role of this team is to create a shared EIP vision through strategic planning, resource support, and facilitating communication across programs. The development of a strong collaborative partnership within the white spaces presented by the R25 CAM Research Education Partnership Project has allowed the librarians to build a strong role within the project.

Conclusion

At the CAM colleges, it was up to us to initiate appropriate training for students and faculty alike and to overcome the obstacles to our inclusion. We wrote outcomes and competency documents and got them accepted across the departments. We were early adopters in our institutions to online teaching and then taught other faculty how to do it too. We worked within the constraints of time and small staffs and created balanced partnerships where previously it had been "librarian and Doctor."

At each of these schools, the four tenets of white space leadership – relationality, unanticipated organizational intention, intention to change, and mutual purpose – were invoked that we might simply do our jobs. To accomplish our prime directive, to put information into people's hands and promote information literacy, we found that we had to go out and create, in Rummler and Brache's terms, a positive transfer climate. We left our functional silos to find our place at the table during the deployment of the R25 grant initiatives, because we saw more clearly than the grant writers and implementers that our input was critical.

Each of these tenets speaks to the training and skill set of librarians. We are students of emotional intelligence, and our understanding of multiple intelligences and learning styles allows us to interact with a wide variety of individuals and hold our own in discourse; this is foundational to relationality. Our training to view the community we serve with a wide lens positions us to identify unexpected partners and understand what they might require from us. In other words, we are wired to anticipate the unanticipated and thus are vigilant to the possibilities of unanticipated organizational intention. The changing landscape of library science has made us sensitive to the reality of ambiguity and the need for transformation, and we can seek to transmit to others that intention to change. And finally, our skill at collaboration, honed by these same shifting sands, allows for identifying a vital interest around which mutual purpose is possible.

These tenets and skill sets are a subset of our professional personality traits. We are, if not by nature, then professionally, highly collaborative systems thinkers and actors. In the process of flexing our White Spaces leadership what we became was proactive, intentional, flexible and innovative. These traits, we have come to believe, are the practical skills and requirements to successfully implement white space leadership and what differentiates this model from other post-industrial leadership schemas.

Using the White Spaces Leadership model informs known behavior that looks for and exploits those unexpected relationships that build the collaboration spaces. By doing so, we reinvigorate the role of

library services, rekindle appreciation for the professional contribution of librarians, and claim a place at the table with strategic partners. Consciousness breeds effectiveness. We are already good at this model of leadership; we just need to name it, apply it, and own it.

Janet Tapper (jtapper@uws.edu) is the University Librarian at the University of Western States. **Richard J. Severson** (rseverson@ncnm.edu) is the Library Director and Associate Professor at the National College of Natural Medicine. **Noelle Stello** (nstello@ncnm.edu) is Associate Librarian and Assistant Professor at the National College of Natural Medicine. **Della Shupe (**djshupe@gmail.com) prior to retirement served as the Library Director and Assistant Professor at the Northwestern Health Sciences University.

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