

SPEAKING IT, STAYING A LIBRARIAN: BUILDING SUCCESSFUL RELATIONSHIPS WITH THE INFORMATION TECHNOLOGY ORGANIZATION WITHOUT LOSING YOUR IDENTITY AS A LIBRARIAN*

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Abstract: Today's corporate environment demands that cross-functional teams come together at a moment's notice and collaborate effectively to rapidly resolve business problems. These short-term task teams are often composed of people who have never before worked together, and may never again. If the team is to be successful, the leaders, whether formally appointed or informally emerging, must determine quickly how to motivate their peers to contribute beyond the minimally required effort. Studies have reported that workers apply as little as 30% of their available effort (Yankelovich and Immerwahr, 1987). Only by harnessing the members' discretionary effort can the team begin operating in a collaborative fashion. The only tool available to accomplish this task is influence, because these teams are typically composed of peers and not direct reports. The literature reports three critical success factors necessary for establishing a relationship conducive to influence. These factors include a clearly defined and understood common purpose, shared responsibility for results, and mutual trust amongst the membership. Mutual trust requires individuals have: a demonstrated level of competence or relevant domain knowledge, a focus on the "broken" work processes versus blaming people, a willingness to admit individual mistakes and to acknowledge limitations, a spirit of cooperation not competition, and an ability to give and receive assistance from associates. The recent explosion of affordable information technology solutions has placed corporate librarians and information scientists squarely in the midst of many task teams with information technology professionals. Librarians are challenged to work with technology without becoming lost in it. This paper will offer one practitioner's views and experiences on how librarians can collaborate successfully with IT professionals without losing their identities as librarians.

What and Why

There is nothing new in the statement that librarians need to network effectively with information technology professionals. Even before the March 1994 Library Solutions' conference "Building Partnerships" (7), library and computing professionals had been trying to understand how best to work together, though, as

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the depth of references in the literature would indicate, perhaps more so in academic settings than in corporate settings.

To some extent, information technology professionals and librarians in academic settings seem to have done a superior job of recognizing the value of working together to deliver results to their customers in the rest of the academic community. The literature is full of case studies of successful collaborations.

In corporate settings, there tends to be a much greater level of competition for turf and recognition. This trend seems to be exasperated in technology-based companies, where the tangible glitz of slick new computers and software always seems to take funding precedence over the intangible benefits of solid information science practice. It's much easier to understand the connection between the efficacy of the accounting or inventory systems with relation to the revenue stream than it is to understand the money and time saved by being able to quickly and easily leverage knowledge nuggets to be found in proprietary or corporate literature. While the core competencies of the information technology profession result in the creation of tangible products, the core competencies of librarians and information scientists result in qualitative enhancement of those tangible products. (Much like the BASF advertisement "We don't make the products you use, we make the products you use better.") These qualitative enhancements can be critical to the successful operation of the information technology product because they enable the human user to make sense of the data and information.

Information Science Core Competencies: Sense-Making Tools

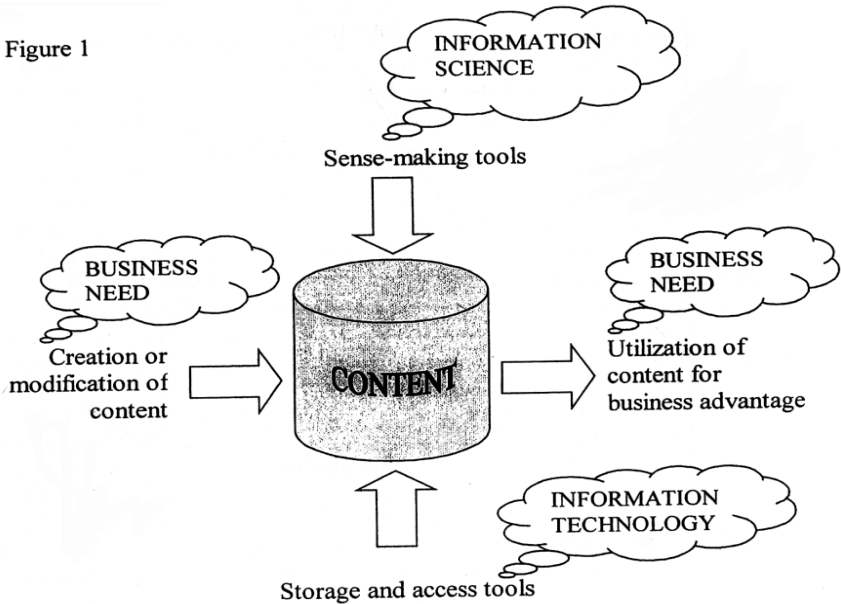
1. Expert knowledge of information resources (content and use)
2. Conceptual analysis (indexing, abstracting)
3. Ability to structure and organize content (information management)
4. Ability to synthesize and customize (information relevancy)

Fortunately, however, there is a growing recognition in corporations that digitized information content must be handled in as rigorous a fashion as the print (9). As information systems become more pervasive and truly enterprise critical, upper management is increasing its expectations as to the speed and accuracy with which the information can be retrieved and utilized. There is diminishing tolerance for problems introduced by, rather than resolved by, the information technology solution. There is reduced tolerance for information overload. Corporations operating in the global economy must rely on the efficacy of their information systems to bring them the competitive advantage they need to succeed in the market place. As a result, librarians and information scientists are increasingly being invited to join

project teams in the formative stages of problem identification and resolution. This is a welcome improvement over being asked to "clean-up the mess" after the fact.

It has become clear that there are actually three key aspects to any information system - business need, information science, and information technology (Figure 1). Without the content associated with a business need, there is no reason for the

Figure 1



information system to exist. Information technology provides the mechanics of the system - the physical storage container, the search engine, the software to manipulate and use the information (system architecture). Information science provides the standards and techniques critical for effective content architecture so that the information is stored in a manner that facilitates accurate retrieval and timely dissemination. Without the content architecture information science provides, the system is just a storage bin to hold information. Information science brings the organization that allows the user to make sense of all that information.

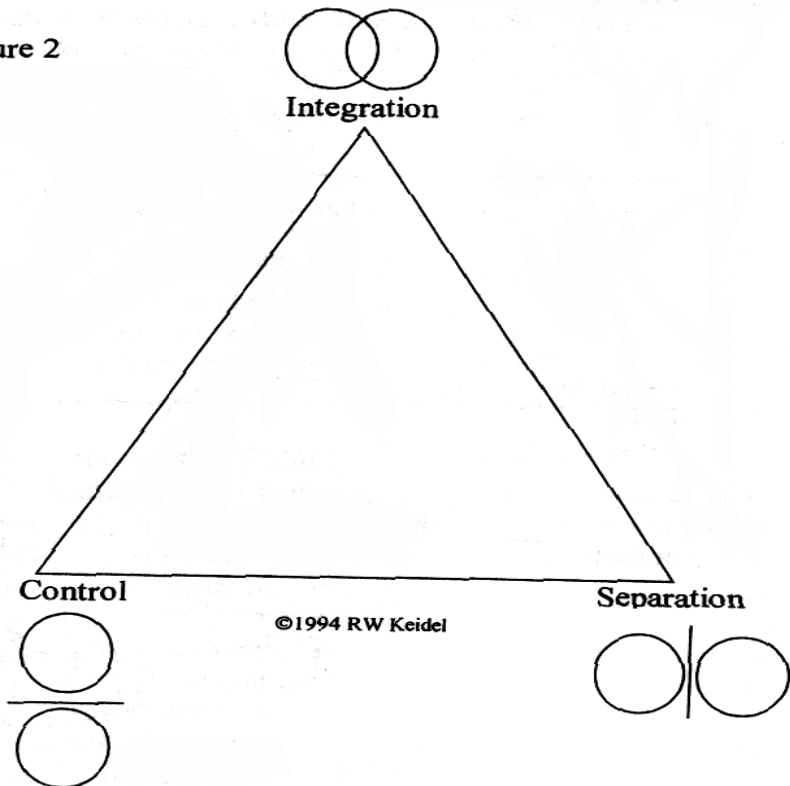
A combination of the growing understanding that content architecture is as important as the architecture of the technology, and the recent explosion of affordable information technology solutions has placed corporate librarians and information scientists squarely in the midst of many task teams with information technology professionals. It seems to be less and less of a challenge to get

ourselves invited to participate early in the projects. However, what continues to be a challenge is how to work effectively with the information technology groups without losing our identity as librarians. How to do this in a manner which educates others as to not only the critical skills but also the critical value of librarians versus the skills and value of the information technology professional. And do all this while delivering the best solution possible to the business.

How

There are essentially three defining modes for constructive human interaction. (Figure 2) Keidel explains that individuals can relate to each other as equal peers (integration), they can arrange themselves in a hierarchical fashion

Figure 2



(subordination), or they can act very independently (separation). What is experienced in any given actual relationship will be a shifting mix of the three

types. All three relationship types involve some form of cooperation, but not necessarily collaboration. Collaboration can occur only when the individuals are willing to integrate on some level. Employees of corporations are contractually obligated to cooperate with other employees to complete the tasks assigned to them. This cooperation can occur whether the relationship be one of subordination, separation or integration. However, personal job satisfaction and innovative, sustainable solutions to business problems tend to be exclusively the result of true collaborative efforts. Bennis and Biederman state "in all but the rarest cases, one is too small a number to produce greatness." While we may not be looking for "greatness", we are looking to resolve the identified business problem with a solution that is both sustainable and provides the business with competitive advantage. We are looking for the best solution in the shortest amount of time. Cross-functional teams provide the opportunity to accomplish complex, interdependent tasks that are beyond the capabilities of the individuals alone. "None of us is as smart as all of us." (1)

As librarians and information scientists are invited to participate in cross-functional task teams with information technology professionals, we must be willing to construct the relationship in a manner that fosters collaboration. We must be willing to come to the table as peers integrated with the information technology professionals, not as autonomous units contributing our "piece" and then walking away, or as subordinates simply doing as we are directed to do. In order to ensure a successful outcome (personally and professionally) and future invitations to participate, we must work to create an equal and collaborative partnership with the information technology professionals. The foundation of an equal partnership is mutual trust. There are five key requirements for mutual trust to occur between individuals.

Mutual trust requires individuals have:

1. a demonstrated level of competence or relevant domain knowledge,
2. a focus on the "broken" work processes versus blaming people,
3. a willingness to admit individual mistakes and to acknowledge limitations,
4. a spirit of cooperation not competition,
5. and an ability to give and receive assistance from associates. (2)

Requirements two through five fall into the categories of personal integrity and the respectful treatment of others. They are fundamental not only to the foundation of a relationship based on mutual trust, but to any sustainable and successful work relationship. The most critical requirement to build mutual trust between corporate librarians and information technology professionals is to develop credibility.

Credibility is built through the demonstration of competence and relevant domain knowledge (the first requirement listed in the above box for mutual trust). Competence and domain knowledge apply to not just information science but also information technology. No one would argue that the first step to getting people to hear you is to at least speak their language. Getting them to listen is the next step. One successful way to be heard is to learn the terminology of information technology and have a solid understanding of the tools and techniques. By understanding how the tools work and what techniques to use, we're in a much better position to be advocates for our customers (corporate information users), and to be able to participate fully in the process of problem clarification and solution development (classic systems analysis). This doesn't mean we need to be able to right computer code and build the information technology solution ourselves. It means we need to stay within our profession's boundaries while understanding the terminology of another profession. It means we need to understand the functionality of the tools and the value of the techniques. We should be reading information technology trade journals and popular magazines. We should be attending relevant vendor seminars at professional conferences. While we should expect the information technology professionals to develop an understanding of our sense-making tools, we can't demand it. But we can be a role model by understanding their tools and techniques.

If you want to be heard, be sure you can speak the language. If you want to be listened to, be willing to build a visible track record of contributions supporting successful solutions. By building an appropriate level of information technology domain knowledge and bringing the information science competence librarians already have, credibility can be developed over time through active contribution to the creation of viable and sustainable business solutions. With each successful solution, a track record is created for the value of both our individual capabilities and the tools and techniques of information science. When information can be disseminated rapidly and built upon for competitive advantage, business leaders take notice. I would argue that the difference between a successful IT-based business solution and an unsuccessful one is the extent to which a librarian or information scientist was able to contribute. Speak their language but don't lose your identity as a librarian. Speak their language because it pays off for the customer and it's the best way to be heard. But don't forget to speak their language in our accent - don't leave our tools and techniques at the door and don't let the value information science competencies bring to the information technology solution get lost in all the "glitz" of the technology itself. Speak the language of information technology with an information science accent. Educate the information technology professionals and the corporation about information

science by demonstrating the value it brings to successful information technology solutions for critical business problems.

With each subsequent task team project, credibility is built and the information technology professionals begin to listen more and argue less. In 1995, I was assigned to a new location as an "information science resource". The client base was composed primarily of chemists and engineers working within a small research center in a subsidiary of DuPont.¹ There had been a recent change in the laboratory director position. Unlike the past director, the new director recognized that information technology was not "a toy", but a critical tool that would provide the research center with the competitive edge it needed to bring value to the businesses it supported. There were little or no existing information systems related to the research and development function. There was a traditional library established years prior by a professional librarian and maintained ever since by a well-trained clerk. One day a week, one of the laboratory technicians conducted literature searches using STN and Dialog. The only information technology support came from the manufacturing facility located near-by.

The chemists and engineers of the research center had been actively teaching themselves about the potential of information technology. There was a tremendously high level of enthusiasm for adopting and implementing new ways of working. When I arrived, I found myself instantly swamped by well-formulated requests for document tracking systems, collaborative databases, proprietary literature databases, etc. In addition, they had developed an understanding of and appreciation for such things as subject categories, controlled term thesauruses and authority lists. On average, they understood that full-text searching was rarely the most efficient or effective way to find what they were looking for. The questions weren't "why do we need controlled term lists" but "how do we best create them".

So the challenge wasn't in educating the consumer (the R&D management and staff) as to the value of information science sense-making tools. Rather, the challenge was in building credibility with the information technology support staff located at the manufacturing facility. Almost the entirety of their work was composed of massive, corporate-wide transactional systems such as SAP. Imagine their faces when a librarian came knocking on their door wanting to talk about setting up HTTP servers, establishing shared directories on the NT servers with specified file structures and access controls, investigating search utilities to run across the NT and HTTP servers, purchasing network licenses for MS Access,

¹ E.I. DuPont de Nemours Co. Inc. is the world's largest chemical manufacturer. DuPont employed the author for sixteen years in various R&D laboratory as well as numerous library settings. To learn more about the DuPont Company, visit www.dupont.com.

Procite and other database tools for end-users, and inviting them to participate in various task teams being established to look at EDMS (electronic document management systems) choices and data warehouse construction. After they picked their jaws up off the ground, we smiled, shook hands and started a long and extremely successful relationship.

Speaking to the information technology staff in their own language during that first meeting, and stating the business problems in the context of information technology concepts, were critical first steps. The extent of the work the team (clients, librarian, IT professionals) was eventually able to complete in the two and a half years I was there and sustain since then had its foundation during those initial few meetings. Early in the work, the corporation began to test Lotus Notes as both an email client and as a collaborative workspace. The research center and production plant were chosen as one of the pilot locations. By that time, the information technology professionals had seen several successful examples of the value information science sense-making tools bring to information technology implementations.

* The initial Intranet (internal corporate web pages) site established on the HTTP server was one of the best in the company because of the use of subject categories and the careful content architecture that we had used.

* The shared portion of the NT server used by the chemists and engineers contained carefully constructed directory structures, file naming conventions, and access control. Users were able to rapidly store and use the information so effectively that the Research Center was able to avoid the (sizable) costs associated with implementing a vended EDMS solution.

* We had constructed a number of Microsoft Access databases for tracking proprietary documentation including research notebooks. The use of authority lists and controlled term thesauruses made data entry and retrieval accurate and rapid.

When the manager of the information technology group invited me to be a participant in the Lotus Notes Design and Implementation team, I realized we had a collaborative, equal partnership. We spoke each other's languages with our own accents. We each had an understanding of how the other's tools worked with our own to provide the customer with the best solution possible. The people with the "easy" funding and recognition recognized their success depended on the incorporation of sense-making tools delivered by librarians and information scientists.

One Step Further - True Collaboration and Innovation

Michael Schrage defines collaboration as the process of shared creation or shared discovery that individuals realize they could not have done on their own. (5) A

partnership relationship between corporate librarians and the information technology community is only the beginning of successful collaborative efforts. The existence of the partnership itself does not guarantee a truly collaborative process will occur. There are three categories of behavior in evidence when individuals are truly collaborating.

- * work processes, relationships and expected results are jointly developed
- * there is joint accountability for high-quality decisions
- * individuals demonstrate a personal commitment to the success of the effort (11)

In "The Soul of a New Machine", Tracy Kidder described human interactions that result in creative collaboration as "webs of voluntary, mutual responsibility." If the cross-functional task team is to successfully collaborate, the leaders, whether formal or informal, must determine quickly how to motivate themselves and their peers to voluntarily contribute beyond the minimally required effort, and to have personal commitment to the success of the effort. Somehow, the flames of passion have to be fanned. Otherwise, the extent of the individual's contribution will be only what is expected of them as defined by their assigned duties and responsibilities.

They will cooperate but not collaborate. Studies have reported that workers apply as little as 30% of their available effort. (13) Only by harnessing the members' discretionary effort (i.e. the other 70%) can the team begin operating in a collaborative fashion. The only tool available for peers to motivate peers is influence.

The literature reports three critical success factors necessary for establishing a relationship conducive to influence. These factors include a clearly defined and understood common purpose, shared responsibility for results, and mutual trust amongst the membership. (11) In today's fast paced, high demand work environment, no one should be doing any work that is not clearly defined and understood in terms of: what is the immediate business issue; what is the business value of resolving the issue; and what are the financial and time constraints for the business. No work should be conducted until these questions are answered and everyone is in agreement. Teams aren't teams unless there is a shared responsibility for the work. The leader will be ultimately accountable to upper management for the results, but the team members must all hold equal responsibility for completion of tasks and contributing intellectual effort. Otherwise, it is just a collection of individuals working within the narrow confines of their formally assigned duties. Finally, and most importantly, a relationship conducive to influence must be founded on mutual trust, which was extensively discussed earlier.

A key to collaboration is ensuring there is equity. Librarians and information scientists must be willing to provide an equal effort, including assumption of risk, responsibility, and labor. There must be an unspoken but visible bartering. If it isn't balanced, the collaboration isn't going to work. If librarians and information scientists want the information technology professionals to understand the value of sense-making tools, then they need to understand the concepts behind SGML, client-server networking, Java, systems analysis, data modeling, etc. Equitable relationships engender a willingness to partner effectively, thus taping into discretionary effort beyond simple cooperation and leading to true collaboration. It is only with true collaboration that innovation will occur. Innovation leads to sustainable competitive advantage for the corporation.

Summary

Two trends have placed corporate librarians and information scientists squarely in the midst of many task teams with information technology professionals. The creation of these teams is being driven by the recent explosion of affordable information technology solutions and the ever increasing recognition that the sense-making tools of information science are as important to the success of an information technology solution as the information technology itself. Librarians are challenged to work with technology without becoming lost in it. One might view the potential failure of information science and information technology to remain clearly defined as autonomous disciplines as a form of brand, trademark or product dilution.² Each discipline brings unique, critical competencies to bear in the creation of sustainable information technology solutions to business critical problems. Neither side can lead unilaterally. What is needed is a parallel approach. (12)

Librarians are challenged to speak the language of information technology with an information science accent. The task is to form and sustain relationships founded on mutual trust resulting from a high degree of professional credibility and domain knowledge, and collaborate with the information technology professionals in the creation of tools so the business can use the content for competitive advantage. In order to accomplish this end, there must be the ability to speak each other's languages and

² A very well known example of trademark dilution is the use of the term Xerox as a synonym for photocopying. Xerox is the manufacturer of the machine. It is not the process the machine runs. Another well-known example (at least in the U.S.) is the use of the term Fridge (which was a model of refrigerator produced by a company called Fridgedaire) to refer to any model refrigerator. Failure to protect trademarks and brand names leads to erosion of market share. Customers think they're buying your product when they are not. DuPont's failure to retain Nylon as a trademark caused a significant erosion of the company's market share in synthetic fabric arena.

understand the capabilities of each discipline. The ultimate challenge for corporate librarians and information scientists is to accomplish this end without losing the identity of a librarian (i.e. being mistaken as an "IT person") and without missing the opportunity to educate the information technology professionals and corporate management on information science value and skills.

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