

# Making Systems Visible

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*Editor's Note: Michael Ray was a keynote speaker at the ARL OLMS Library Human Resources Symposium held on 2-3 March 2000. Excerpts of his remarks are included here to illustrate how one institution applied systems thinking to make changes in their library organization. The examples show how systems thinking can display and help implement responses to some of the consequences of adding new and evolving position descriptions to libraries, such as those reported by Kathryn J. Deiss in her article, [Changing Roles in Research Libraries](#), on page 15 of this issue of ARL.*

Ten years have passed since Peter Senge published the national best-seller *The Fifth Discipline*.<sup>1</sup> For many of us, Senge was the first writer to articulate in a meaningful way the importance of systems thinking. In his 1994 forward to a new edition of *Fifth Discipline*, Senge suggested that the radical changes propelled by growing uncertainty, global markets, and economic and political turbulence required change not just in our organizations, but in ourselves as well. He said:

*Only by changing how we think can we change deeply embedded policies and practices.  
Only by changing how we interact can shared visions, shared understandings, and new capacities for coordinated action be established.*

As an internal consultant to the University of Arizona (UA) Library, I am challenged by systems thinking not only to change how I think, but also how I communicate. In 1997 I was asked to help the Library design a reward system that would reinforce its team structure. This meant that I needed to convince employees throughout the Library that change was necessary, while educating them about a system about which few had any knowledge....

Making systems visible is a challenge. We need help. I use visual approaches to challenge collective habits of thinking and seeing. These approaches utilize the leverage power provided by graphic images of time and space. The Library, stressing process improvement, customer focus, and flexibility among its values, asked a great deal of its employees in terms of learning new behaviors and taking on responsibilities that once were solely required of supervisors. When proposing changes in compensation and reward policies, the affected population of employees is one of the first stakeholder groups whose support and involvement is required for success.

The Library needed clearer staff understanding of the compensation system through which their job titles and pay are determined. One key illustration of the compensation system is the pay schedule, which in our institution takes the form of a table with pay grades and ranges including minimum hire amounts, midpoints, and maximum hire amounts.

This is the sort of fundamental system element of which employees are often unaware. They frequently don't understand the logic behind the pay schedule. And just as often, the logic that served to design the pay system is hopelessly out of synch with the current market realities in which we find ourselves. That is true at the UA. Our schedule is essentially unchanged since 1991. It is in use by all three of the state universities in Arizona. Market adjustments in some job families are being made as money allows, but the framework itself is under increasing stress. I was curious about how our classified staff fared in their pay, and what would happen if we made it possible for them to "progress" in pay within their current grade and position. [Figure 1](#) is one chart out of several describing all the grades and positions in use at the library.

Note that in the cases shown here we were paying our staff in the bottom quartile of the pay range. Many

of the people who are represented as numbers on this chart worked for the library for eight, nine, ten, or more years. This graphic portrays in stark terms the realities of compression in our pay system after the economic recession of 1988-1994. Compression results when wages for those jobs filled from outside the organization are increasing faster than the wages for jobs filled via promotion or progression in pay within a person's existing job classification. In our case, new people were being brought in at salaries equal to or above those who had labored in the Library for many years.

This graphic was shown to staff to make the case for a change in policy and program. We wanted to reward staff "in-position" who learned new knowledge and skills that when successfully applied made them more flexible, more competent, and more "exemplary" in their work. Essentially, the UA Library wanted to complement a pay-for-job program (the pay schedule) with a pay-for-person program utilizing an existing "in-classification career progression" policy.

After implementing a career progression program, I wanted to show how the system was changing over time. Given the Library's history of change going back to 1992, I thought it would be good to start at a point in time just before the changes began.... [Figure 2](#) presents a picture of systemic change in the staffing and compensation of employees at the UA Library about 10 years ago, circa 1992. It contrasts significantly with the compensation architecture of 1999-2000 shown in [Figure 3](#).

Note the existence in 1992 of four big groups of staff with the titles of Library Assistant, Library Assistant Sr., Library Specialist, and Library Supervisor. You can see significant overlap in pay ranges and a fairly even distribution of people in positions. Among the librarians, you can see the difference between the lowest paid assistant faculty position and the highest paid full faculty is about \$40,000.

[Figure 3](#) shows an organization with more professionals in 2000 (61) than in 1992 (53), fewer support staff in 2000 (113) than in 1992 (136), and an evolution to a current situation in which there are no Library Assistants or Assistant Seniors, 58 Library Specialists in 2000 as compared to 37 in 1992, and half as many supervisors in 2000 (9) as were in place in 1992 (18). By migrating people and positions out of the entry-level classifications and into specialist work, the UA library has accomplished an ad hoc "broadband" for these support staff titles within the larger context of a "decision-banded" compensation system (titles defined by decision-making power).

These charts exemplify how systems thinking can affect the way you do human resource work. Systems thinking continues to play a big part in the way these problems are addressed at the UA Library. As Senge notes:

*The bottom line of systems thinking is leverage--seeing where actions and changes in structures can lead to significant, enduring improvements. Often, leverage follows the principle of economy of means: where the best results come not from large-scale efforts but from small, well-focused actions. Our nonsystemic ways of thinking are so damaging specifically because they consistently lead us to focus on low-leverage changes: we focus on symptoms where the stress is greatest. We repair or ameliorate the symptoms. But such efforts only make matters better in the short run, at best, and worse in the long run.*

We need to recognize that our professional roles, and the systemic forces that are changing them, propel us toward the necessity to keep many relationships in mind as we do our specialized work. If we can master the complexity of such relationships, our effectiveness will be enhanced. In these cases most of the data was already available. I had to find graphic ways to display the data to demonstrate for library employees the larger systems in which they function. My own experience is that people respond favorably to visually explained information about such relationships, and make better decisions as a result.

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## Endnotes

1. Peter M. Senge, *The Fifth Discipline: The Art and Practice of the Learning Organization* (New York: Doubleday/Currency, 1990).

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[Table of Contents for Issue 208/209](#) | [Other "Current Issues" Articles](#)  
[Other Leadership and Management Articles](#) | [Other Statistics and Measurement Articles](#)



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