

Will the 21st Century Dr. Deming Please Stand Up?

Making Knowledge Work More Productive

© All Rights Reserved Lesa Becker 2009

What do [Lucy in the Chocolate Factory](#), [Plate Spinners](#) and [Whack a Mole](#) have in common? They are analogies leaders use to describe their work environment consumed by too *much information, too many projects, and competing priorities*. They also represent the underlying fear managers have of not being able to keep up with organizational expectations in a climate of information overload and scarce resources. These issues surfaced during *The Impact of Organizational Information Overload on Managers: Making Knowledge Work Productive in the 21st Century* case study I completed in 2008.

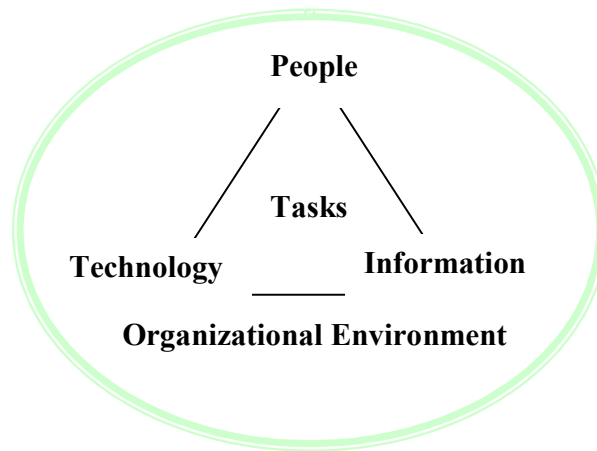
Camille (aka Lucy in the Chocolate Factory), a manager in her early 40s, participated as a focus research group participant. She confessed:

Friday I ended up... questioning my ability to keep working here and concerned I'm going to be the next one who is just suddenly no longer here. Part of my concern is the ability to manage the incoming deadlines, the restrictions on staff, ability to get everything done... in a timely fashion, and still have a life. And, not end up in the ER with a heart attack or a stress disorder. (Becker, 2009, p. 93).

Peter Drucker (1969) recognized we would be required to learn new skills to work effectively in this 21st Century environment. He suggested “to make knowledge work productive will be the great management task of this century” (p. 272). Alvin Toffler (1970) predicted the exponential rate of change would lead to “massive adaptational breakdown” or *Future Shock* (p. 2). Since Drucker and Toffler’s predictions four decades ago, there has been an exponential growth in the quantity of information managers must process and new technology they must learn. The symptoms of *adaptational breakdown* are evident in the published research on information overload. The literature also suggests many solutions. If we understand the problem and its impact on people, ***why have we not solved this problem?***

Not only have we not solved the problem, it seems to be getting worse. Unfortunately, we are not one more software product, Web 2.0 tool, smart phone or time management technique away from nirvana. A systems theory approach to helping leaders find their way out of the information overload abyss might not be to *find the right solution*, but instead to *discover the real problem* (Ackoff, 1974, p. 8).

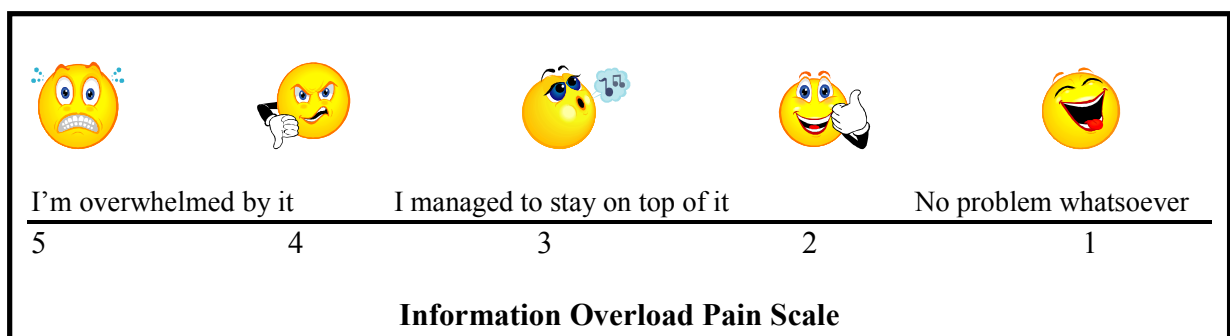
In order to understand the impact of information overload on managers and to uncover the real problem, I utilized the research framework proposed by Eppler and Mengis (2004) in a healthcare setting. Managers gathered information on: (1) the characteristics of the information they are required to process; (2) the types of tasks they perform with the information they receive; (3) the technology they use to assist in performing those tasks; (4) personal or human factors that help or hinder their ability to manage information; and (5) organizational factors that impact their success.



Systematic Information Overload Research Framework
Adapted from Eppler and Mengis (2004)

Following two pilot studies I conducted in 2005 (n=3) and 2006 (n=3) to assess whether information overload was an issue for healthcare managers, I recruited participants for a focus research group (n=11). Participants ranged in age from their late 20s to their early 60s and held titles of supervisor, coordinator, manager and director. They managed a wide range of departments from organization-wide programs with no employees to large nursing departments with over 100 employees.

I asked participants to document the impact of information overload by recording their overload pain scale score; completing reflective journals; and documenting their work on information, task and technology logs.



Participants discussed the information they gathered during facilitated bi-weekly meetings which I recorded and transcribed. I also retained copies of their reflective journals and logs. Information overload pain scale scores ranged from an average of 2 to 5. The transcripts revealed differences between managers recording low overload scores and those with consistently high scores. The data suggested information overload impacted leaders differently depending on their scope of responsibility, clerical or supervisory level support, the information intensiveness of the roles of

their staff, and personal characteristics that helped them manage information overload. For more detail on the differences observed, please contact me at the email listed at the bottom of this article.

Change in the Role of Managers

It was also noted that the role of a manager has changed as they spend more time managing information and technology. Over 90% of the tasks managers performed involved the use of technology. As new software products were implemented, leaders noted a shift in clerical tasks from payroll or purchasing clerks and administrative assistants to managers. The role of a manager has changed *from* managing people and work processes *to* managing information, technology, people and work processes. Managers reported they struggled to find time to manage and mentor their staff – the organization’s most expensive and valuable resource, its human capital. They also struggled to find time to visit their customers. Instead, manager Mitch described being “married to the one-eyed beast” on his desk and trapped by his meeting schedule.

Impact of Organizational Environment or Culture

The most significant finding of my research was the impact the organizational environment had on information overload. Managers indicated organizational culture was a *more significant contributor* to information overload than the volume of information, personal characteristics, the way they performed tasks or the technology they used. Managers in this study recommended *fundamental changes* in the way the organization prioritizes its expectations of leaders, makes decisions, manages projects, oversees committee work, deploys human resources, and manages the use of technology.

A few examples of organizational changes recommended by managers include: (1) adopting a strategic planning process that limits strategic goals and tactical plans to those the organization has the *human capital*, or human capacity to support; (2) clearly communicating the decision making process for projects including levels of responsibility, authority and accountability to avoid redundant work or competition between divisions; (3) limiting the number of software products implemented during the same fiscal year; (4) calculating the ROI on software products and include costs associated with shifting work from lower paid workers to highly paid professionals; and (5) significantly reducing the number of meetings and the number of individuals participating in meetings to avoid what participants called the “paralysis of collaboration.”

More Discipline

None of the recommendations suggested by research participants are new. They represent the need to instill *more discipline* into the way we manage our organizations today. Just as managing individual information overload requires more personal discipline, the findings of my research suggest a mandate to exercise more discipline at the organizational level.

Sadly, I don’t have the all of the answers. I hope this research helps uncover the underlying problem of organizational information overload and highlights the importance of creating the organizational conditions that will allow managers and other knowledge workers to thrive. Dr. W. Edwards Deming transformed the quality and productivity of the manufacturing process in the 20th Century. I believe the conditions of information overload call for a Deming-like transformation the business practices of our organizations in order to make knowledge work more productive.

Will the 21st Century Dr. Deming please stand up?

References:

Ackoff, R. (1974). *Redesigning the future: A system approach to societal programs*. New York; Wiley

Becker, L. (2009). *The Impact of Information Overload on Organizational Managers: Making Knowledge Work Productive in the 21st Century*. Unpublished manuscript, University of Idaho.

Eppler, M. & Mengis, J. (2004). The Concept of Information Overload: A Review of the Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines. *The Information Society*, 20, 325-344.

Drucker, P. (1969). *The Age of Discontinuity*. New York: Harper and Row.

Toffler, A. (1970). *Future Shock*. New York: Random House.

About the Author:

Lesa Becker is a registered nurse and holds a MS in Instructional and Performance Technology, specializing in improving human performance. In 2006, she was identified as one of the Top 10 Graduates of the College of Engineering at Boise State University. She is a PhD candidate in Adult and Organizational Learning at the University of Idaho.

She currently works in the healthcare industry as a director of organizational learning. She enjoys snorkeling, kayaking, skiing, snowshoeing and hiking with her family.

She can be reached at lesabecker <at> vandals.uidaho.edu