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"Agile Management: Leadership in an Agile Environment"

Ángel Medinilla, 2012, 184 pages, Springer, $69.95

Review by Norman M. Goldfarb

"Agile Management: Leadership in an Agile Environment" explains how organizations can translate Lean Manufacturing processes to knowledge-based organizations.

The trick, as it turns out, is to "let go," a bizarre concept for an industry so regulation- and SOP-driven as clinical research. Nevertheless, enabling site monitors, for example, to open their eyes and take more initiative is a key requirement for achieving the benefits of risk-based monitoring.

Highly skilled people are an organization's most valuable asset, so freeing them to fully exploit their expertise (without creating chaos) should be management's primary role. Standardization still plays an essential role, but to rapidly propagate innovation, not to stifle it. The more complex and dynamic the project, the more important these principles bewcome — clinical research anyone?

Of course, there is a lot more to agile management, but the author presents it in a very understandable manner, for example:

> **The Problem with Central Intelligence**
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> One of the most used examples of a self-organizing system in Agile literature is the roundabout. A roundabout is a system with a very reduced set of rules:
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> 1. Don't crash (this is usually a good rule).
> 2. Follow the roundabout circulation direction.
> 3. Cars in the roundabout have preference.
> 4. Exit the roundabout only from the outer lane.'
>
> General traffic rules also apply, but in essence, roundabouts leave all the decisions on when to enter or exit to the drivers. And they work. Very effectively, in fact. In many situations, they have proven to be safer, provide better traffic flow, and have a higher capacity than other solutions like traffic lights, where cars must wait until the light turns green even if there are no other cars crossing.
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> Of course, when an accident occurs or an obstacle blocks the roundabout, traffic agents are required to deal with the impediment. But what happens when the traffic police agents decide to manage the road intersections?
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> Well, first we have to consider the cost of having a policeman managing all traffic junctions. The management overhead can be prohibitive. But even if we wanted to make such an investment, there is another problem we have to consider too: if the traffic is low, the policeman can make good decisions on who has the right to enter the junction, but when the traffic gets higher, each individual driver is capable of assessing his own chances to pass or enter the junction, while the policeman is not able to process that much information. So he usually allows a big batch of cars to pass, until the other cars start to honk aggressively, and then he will switch to those. As the batches grow bigger, the traffic jam will become inevitable!

As you see, the problem with central intelligence is that, no matter how well trained and skilled it is, it can't contain and process all the information in the system. In fact, no one can.

If you look into nature, you'll find it hard to locate examples of central intelligence, meaning that one smart element will tell every other part of the system what to do. On the contrary, a lot of decentralized intelligence or "swarm intelligence" examples exist, from ant colonies to bird flocking, fish schooling, bacterial growth, or immune systems. In fact, swarm intelligence has been replicated on robotics as the best way to manage decentralized, self-organizing systems.

Swarm intelligence, as with most complex adaptive systems, relies on a small set of rules that allow individuals a great deal of autonomy as long as they follow those rules. For instance, bird flocking seems to work with three simple rules:

1. Separation – avoid crowding neighbors (short-range repulsion).
2. Alignment – steer toward average heading of neighbors.
3. Cohesion – steer toward average position of neighbors (long-range attraction).

In another example, ants looking for food will follow a set of simple rules that can be summarized as:

1. While walking randomly out of the hive, leave a pheromone trail.
2. If you find a pheromone trail, follow it and lay down more pheromone.
3. If you reach home while following a pheromone trail, turn back.
4. If you find food, turn back and follow the pheromone trail back home.

This set can be reduced to as few as two rules:

1. If not carrying food, walk randomly or on a pheromone trail in food direction.
2. If carrying food, walk on pheromone trail in home direction.

> "Simple, clear purpose and principles give rise to complex and intelligent behavior. Complex rules and regulations give rise to simple and stupid behavior."
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> —Dee Hock, CEO Emeritus, VISA International

So the question is this: central intelligence is great when we face predictive, simple, algorithmic environments. But when we live in a complex, unpredictable environment, self-organization works better. So much better that one of the most well-known examples of central intelligence, the CIA, is looking at complex adaptive systems theory (one of the sources of Agile lore) to find ways to operate in a security environment that, by its nature, is changing rapidly in ways they cannot predict.

The book includes nine chapters:

- A Brief History of Management
- Lean and Agile in a Nutshell
- The Agile Manager’s Role
- Agile Management
- Self-Organization
- Agile Structures: Scaling Agility
- Managing Capacity and Workload
- Agile Culture and Driving Change
- Final Thoughts

The book is available at bookstores.

Reviewer

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