

Self-organizing teams - Challenges and Strategies

Background

Self-organization – Human systems are complex systems. Though they are unpredictable and difficult to control from outside they consistently exhibit the qualities of flexibility autonomy and robustness. These systems spontaneously organize themselves so as to better cope with various internal and external perturbations and conflicts. This allows them to evolve and adapt to a constantly changing environment. ^[1]

Wikipedia defines self-organization as “the process where a structure or pattern appears in a system without a central authority or external element imposing it through planning. This globally coherent pattern appears from the local interaction of the elements that make up the system, thus the organization is achieved in a way that is parallel (all elements act at the same time) and distributed (no element is a central coordinator).”^[2]

Scope – One of the themes for next ten years that emerged during “10 years of agile” meeting at Snowbird, Utah was “Maximize Value Creation across the Entire Process”. As Jeff Sutherland said in an interview “It is not enough to promote agility at the individual or the team level. Agile leaders need to lead agility throughout the organization.”^[3]

Hence it makes sense to discuss the benefits challenges and solutions in a more generic way so that they can be applied not only to agile software development teams but also to the rest of the organization. This is important for two reasons. One, the software development teams do not exist in isolation, they live within the overall eco-system of the organization. Secondly, understanding and active participation from the management is critical while evolving project teams as well as in nurturing them. It needs a consistent approach while dealing with agile software development teams as well as with the rest of the organization. Any contradictions with rest of the organization would seriously hamper self-organization within agile teams.

Agility and self-organization

One of best general definitions of agility that I have come across states “Agility is the ability to change the direction in an efficient & effective manner and to achieve this you require a combination of balance, speed, strength and coordination.”

Let’s see how self-organization enhances our agility.

- Self-organizing systems spontaneously organize themselves to cope with external disturbances and are able to handle temporary destabilization and quickly regain their balance.
- Speed comes from their distributive nature as they are not dependent on the response of a centralized coordinator.
- Self-organizing systems work on the principle of maximizing mutual benefits rather than minimizing conflicts. Collective and mutually supportive response has a much higher strength.

- Lastly, multiple elements actively participating with autonomy provide enhanced coordination.

All these factors help the self-organizing system to be flexible while retaining its robustness. Thus we can say that agility and self-organization go hand-in-hand. If we want the whole value chain to become agile, self-organizing teams is an essential component of the overall solution.

The challenge

Adopting agile mindset and practices across the whole organization is a big challenge. It is easier said than done. It needs good grasp of issues involved, especially by the leaders at different levels.

Though not the only one, self-organization is an essential element of agility. However it goes against the established ways of managing the organization. To be successful it requires patience & perseverance. It is a prolonged and massive effort of understanding the current structures and why they are becoming a bottleneck as well as the changes required to transform the teams to be self-organizing.

Benefits of self-organizing teams

These are certain benefits which can be available to any team in a business organization, if it functions as self-organizing team.

- **Faster actions and decisions** – However capable and experienced the team leader, soon he becomes a bottleneck in speedy decisions & actions. This is especially true where the team members themselves are expected to take on the spot actions or decisions since they are best aware of the current situation.
- **Individual and team development** – Self-organization takes away the protective umbrella provided by the team leader and forces the individuals and the team to take greater responsibility and ownership of their work. In such an environment, team members understand which skills & knowledge they need to acquire and go about on their own doing so. They also benefit from the support provided by their peers. I have seen both the members as well as the teams rapidly mature by facing the challenges, sort of baptism by fire.
- **Redistribution of work between leader and the team** – In a command & control culture, a typical team leader spends most of his time planning & tracking the work of his sub-ordinates. As a result, he is left with very little time & attention to devote to the long term needs of the team and its members. As the team becomes more & more self-organized, plenty of planning & tracking tasks are taken up by the team. As a result, the team leader now has lot more time on his hand to engage in activities which do justice to his experience exposure and maturity.
- **Use of full human potential** – People have lot of potential of which only a fraction normally gets used in a command and control culture. When a team is self-organized, there are lot more opportunities to explore hidden or unused talents of its members.

Bottlenecks in self-organization

The underlying driving force behind these benefits is “**Synergy**”, which I view as an abbreviation of “**System Energy**”^[4]. Each system has an abundant supply of energy. It is the various

bottlenecks which restrict it's free flow where we need it. Self-organization removes many of these bottlenecks as we shall discuss in solutions.

The structures which act as impediments or bottlenecks to free flow of system energy become challenges for self-organization. These broadly fall in two categories.

Bottlenecks in adoption – When the team members come to agile from traditional command & control environment, there is a lot of unlearning to be done. Some of these are personality traits like,

- **Inertia** – Find comfort in old habits, resistance to try new ways of working
- **Ego** – Perceived superiority over other junior or less experienced members
- **Diffidence** – Lack of self-confidence leading to hesitation to mix & share
- **Individual credit** – When team members seek individual credit for successes, It breaks down free sharing of information and local interactions

The way teams are organized lead to some challenges like,

- **Distance** – when a team is made up people who are at different locations
- **Time** – When team members are from different time zones, sometimes on opposite sides of the globe

Both these increase risk of “Out of sight, out of mind”, and seriously hamper communication and team bonding.

Bottlenecks in transformation –

These structures can be at individual or team level, like

- **Habits** – Habits get into our system clock and are very tough to resist
- **Assumptions** – For example about cause & effect or what works for us and what does not. These are easiest to change since no emotions are involved
- **Beliefs** – We are emotionally attached to our beliefs and they affect our decisions & actions.
- **Values** – Represent what we identify with, what we consider right or wrong and are toughest to change.

Whatever we observe or experience, gets filtered through them before it reaches us.

The structures could also be external to the teams like,

- **Hierarchical** – In business organizations, reporting relationships have a major impact on the individual motivation and priorities. Complex hierarchical structures also tend to encourage silos and seriously hamper smooth flow of communication.
- **Procedural** – These include all the policies and processes laid down by the management and they are expected to be followed by all the members of the organization
- **Cultural** – These take the form of traditions and conventions which take shape over a period of time. Though mostly unwritten, they have a strong influence on the behavior and individual preferences

Solution

As with the challenges, we will look at generic solutions which can be used by the management of any business organization to evolve and nurture a self-organizing team. We will also look at specific situations which may be applicable only to the self-organizing agile teams involved in software development.

Freedom and structures

In a business organization structures appear as policies & processes, even cultural aspects like traditions & conventions. They shape the behavior of members by encouraging certain actions / decisions while discouraging / restricting other actions or decisions. While the structures can become bottlenecks they can also be modified to act as facilitators.

When people talk of freedom, they are mainly talking about freedom OF choice. There are also situations where they don't want to be overburdened with options and look for freedom FROM having to make a choice; in such situations they welcome the structures. Well thought out and executed structures are great levelers and ensure a fair treatment to the majority. They give us optimum freedom so that we can operate comfortably within our ability to make the right choices.

Progressive need for freedom

When people are trying to understand and master a new way of working, in this case being self-organized, the Japanese concept of "ShuHaRi" can be quite useful. In simple terms it considers the three stages of this process. ShuHaRi roughly translates to "first learn, then detach, and finally transcend."

Martin Fowler has explained it well as^[5],

Shu: In the beginning stage the student follows the teachings of one master precisely. He concentrates on how to do the task, without worrying too much about the underlying theory. If there are multiple variations on how to do the task, he concentrates on just the one way his master teaches him.

Ha: At this point the student begins to branch out. With the basic practices working he now starts to learn the underlying principles and theory behind the technique. He also starts learning from other masters and integrates that learning into his practice.

Ri: Now the student isn't learning from other people, but from his own practice. He creates his own approaches and adapts what he's learned to his own particular circumstances.

Implementation strategy

Now let's now see how the leadership (Management + team leader) can work in unison where the management brings about required structural changes in the organization which the team leader uses to shape the transformation from a controlled to self-organized way of working. Though specific examples will be used during the session to drive home the proposed solution the underlying approach will be,

To begin with, the team leader will make certain practices and events mandatory to let the team members get comfortable with self-organization without worrying too much about the

underlying theory. They are given only one way of doing things and when practiced often enough, they become a habit. Once the team members experience the benefits first-hand, they want to keep following the good practices.

Once a member is past that stage, he is ready to understand not just “how” but also the “why” part. He starts sharing with others within as well as outside his team what works for him and what does not. He reads as well as discusses about different techniques or strategies and starts absorbing the learning in his practice.

When majority of the team has reached that stage, it does not any more need to depend on outside help. The members come up with their own strategies to deal with their specific situations as applicable to their own context. This becomes a voluntary activity. As more and more teams are transformed in this manner, the organization as a whole gets transformed. In short, the whole value chain gets transformed.

Takeaway

Use control to influence; use influence to empower

Conclusion

To experience a major impact on the business organizations, we need agility not just at the individual or team level, but across the entire organization. To this end, helping teams become self-organizing is a crucial step. However, self-organization can't be imposed. We can only help it evolve and later nurture to bring about the transformation.

There are many benefits of self-organization but there are also challenges. Leadership at the team level as well as at the organization level needs to understand those challenges and must work in unison to bring about the required changes and sustain them.

One of the important characteristics of a self-organizing team is need for greater freedom. However, freedom is often misunderstood to mean more and more options. Contrary to the common belief, a person or a team is comfortable with only as much freedom as they have the ability to cope with successfully. Beyond that point, freedom of choice becomes an overhead and they look for freedom FROM choices. Understanding the existing structures and suitably modifying / tweaking them to provide the optimum balance.

For the team and its members, the kind of freedom needed is not static; it evolves as they become more and more self-organized.

Summary

Agility will make a major impact on business organizations when it spreads to the whole organization; not just software development. For this, evolving & nurturing self-organization is a crucial step.

Though there are many benefits of self-organization, there are also unique challenges. Leaders need to understand them before applying right solutions at the right time.

This session is for you, if you are leading a team or an organization. You will learn the way to get maximum benefits of self-organization, supported with practical examples.

References

- [1] Complexity and Self-organization <http://pespmc1.vub.ac.be/Papers/ELIS-complexity.pdf>
- [2] Self-organization <http://en.wikipedia.org/wiki/Self-organization>
- [3] Jeff Sutherland: Are Agile Teams Truly Agile? <http://www.infoq.com/interviews/jeff-sutherland-agile-teams>
- [4] Prabhakar Karve blog <http://prkarve.wordpress.com/2011/11/21/synergy-redefined-and-demystified>
- [5] ShuHaRi <http://martinfowler.com/bliki/ShuHaRi.html>