

Team Agility: Exploring Self-Organizing Software Development Teams

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Self-organizing teams are undiscovered country for most software development professionals. What does it mean to say Agile teams are self-organizing? If a team is truly self-organizing, can we lay off all the managers? How does a shift to Agile methods shape the roles of team members and managers? What can team members and leaders expect when working with Agile teams on the way to self-organization?

Each of the questions above deserves a complete examination that is more in depth than we have room for in this article. However, here are some short answers.

When we say an Agile team is self-organizing, we mean that a group of peers has assembled for the purpose of bringing a software development project to completion using one or more of the Agile methodologies. The team members share a goal and a common belief that their work is interdependent and collaboration is the best way to accomplish their goal. Empowered team members' reduce their dependency on management as they accept accountability, and the team structure places ownership and control close to the core of the work. Rather than having a manager with responsibility for planning, managing and controlling the work, the team members share increasing responsibility for managing their own work and also share responsibility for problem-solving and continuous improvement of their work processes.

If the team is assuming responsibility for managing the work, can we get rid of the managers? In short, no. Managers are still needed. Not so much for their planning and controlling ability, but for the important job of interfacing on the team's behalf with the rest of the organization. In addition, a team self-organizes over time and usually follows a stepped approach to assuming responsibility for self-managing. The manager plays several important roles, including the incremental letting go of management tasks as the team becomes more adept at performing them.

Agile methods inherently drive the team in a self-organizing direction. As alluded to above, this causes a shift in the roles of managers from planning, controlling, directing, and managing to new roles like building trust, facilitating and supporting team decisions, expanding team capabilities, anticipating and influencing change. Managers become facilitators, liaisons and network builders, boundary managers, resource allocators, team champions and advocates, and in most cases, still have responsibility to watch the budget. Team members' roles change too as the group takes on increasing ownership of work processes and Agile practices. They become decision makers, conflict managers, innovators and conveners of spontaneous standup meetings that can bring production to a halt!

As with any organizational system change, the transition to self-organizing teams can be daunting – rocky and confusing. However, the process can be made easier if team members and leaders learn the fundamentals of the 'care and feeding' of teams. In particular, Agile practitioners reap benefits for their project by paying attention to three aspects of team dynamics:

- Tracking the team's progress toward self-organization

- Giving the team a good start
- Applying practices to encourage effective team dynamics
- Choosing strategies to move the team from the predictable impasses into higher productivity, satisfaction and success

Tracking Self-Organizing Teams

The secret to successful teamwork lies in understanding, and then taking action based on, two factors: 1) the dynamics of team growth and development, and 2) the conditions that foster effective teams. Issues facing teams change over time as the team moves through the well-documented stages of group development, first proposed by B.W. Tuckman and validated through research and empirical observation for nearly 40 years.¹ In each stage a team encounters typical team issues and interacts with six elements of teamwork: performance, working agreements, shared responsibility, sense of purpose, communication and commitment. These elements evolve through the stages of development as the team learns to perform together.

Note that the stages are not stair steps in the sense that teams start and proceed in an orderly, linear, predictable manner onward and upward until they achieve their top performance level. The stages are stair steps more in the Shirley Temple/Bill Robinson tap-dancing mode (for a visual example, see the 1935 movie, *The Little Colonel*): two steps upward, one step down, three steps up, five steps back down, continuing until they reached the top. Teams start at the first stage often going up and down a number of times, and some never settle permanently at the top. Internal issues and external forces will affect every team's developmental progress. These forces may include a large-scale organizational change, lack of supporting organizational systems, losing or gaining team members, the nature of the tasks or goals, break-up and reforming of teams, and others. Sometimes the steps through the stages seem more like a print by Escher, circling around and going nowhere in particular.

In addition, when dealing with teams, we must remember that they are rarely in a static state, but more likely to be moving along the development continuum and at any given time may exhibit characteristics associated with more than one stage. Through informed observation, team leaders and members can distinguish whether the team is making progress or has hit an impasse. That's how you know when your team could use some immediate help. Team leaders can learn about specific challenges to expect along the way, how teams can get sidetracked, how to recognize the sidetracks and strategies for re-direction.

Getting the Team Started Right

As teams initially form and begin working together in the forming stage, individual team members often have a sensation similar to being the new kid in class. They are not fully committed to working with others yet want to feel included, or rather want not to feel excluded, by the rest of the group. Individual team members get busy gathering the information they need to orient themselves to the new Agile practices, to feel safe in the new territory and to produce software to their personal standards. In this stage the team may accomplish less concerning its task goals than managers would like. With the right support, most teams can move more quickly through this phase.

Both team members and team leaders take on new roles when Agile teams become self-organizing. The roles of team leaders change from traditional planning, controlling, directing responsibilities to ones that require being a facilitative leader, team advocate, resource allocator,

boundary manager, and generally increased savvy about managing the organizational changes. Most professionals who have had leadership roles before have used some of these skills. Leading a self-organizing Agile team requires that the degree of focus shifts more toward their use. Subtle changes also occur as the role of individual contributor changes to the role of self-organizing team member. A greater degree of attention is needed to the well-being and effectiveness of the team as a whole, as well as stepping up to the accountability and sense of empowerment to make as a team decisions formerly handed down from management.

Encouraging Effective Team Dynamics

An understanding of the role of trust and communication in teamwork is fundamental for teams to develop and mature into truly self-organizing status. This means team members take more notice of process dynamics – a shift that some developers may consider a distraction from the real work. However, in addition to transmitting information and data, communication also serves a number of other purposes in developing a team that can develop efficiently and effectively. Skilled team communication serves a hierarchy of needs. It builds the foundation of trust so essential to efficiency. The presence of trust in working relationships translates into the rational commitment to the work of the team as well as the emotional commitment leading to loyalty to one's colleagues – the glue that holds the team together. That glue shows its importance when disagreements and inevitable conflicts in opinion arise. A mutual acknowledgement of shared commitment to the work and to each other all allows team members to work toward solutions to conflict constructively without avoidance. The fear of uncomfortable angry, distrustful confrontations is lessened or absent. As a team develops the ability to surface and work through conflicts, its capacity for innovation and creative problem-solving skyrockets, leading inexorably to full self-organization, high performance and true agility.

For example, the promulgating the adoption following six communication tools are effective in providing a work environment that generates trust:

1. **Credibility:** Be consistent and reliable, follow-through
2. **Tune In:** Show the other person you listened
3. **Self-disclose:** Lift your “Mask” (even a little helps)
4. **Empathy:** Put yourself in the other person's “shoes”
5. **Stretch:** Express interest in the team and team mates
6. **Communicate:** Seek and give effective feedback

Keeping the Team Moving in the Right Direction

Depending on their stage of development, teams encounter predictable challenges that can sidetrack attention and affect performance. Addressing those challenges and ensuring the team is developing appropriate quality and interaction skills along the way, endows the team with a greater ability to stay on course toward the goal. For example, after the team has worked

together enough to understand each other's commitment to getting the job done, they may be willing to acknowledge more difference of opinion and surface more conflicts. On the way to self-organizing, during this stage team members test the extent of their power and control over their work processes. A wise manager will expect the increased tension and stress this can cause, recognize it as progress in team development and be ready to support team members in getting the information and support they need from other parts of the organization. In addition, tracking and celebrating the early small successes promotes team cohesion and ramps up momentum toward results for the customer.

The potential rewards of Agile self-organizing teams are great; however, results are not achieved without the investment of focus by team leaders and members – focus on the skills to be honed at each stage of the team's development. Ask yourself, “When I think of all my experiences as a part of a team, whether as a leader or member of the team, what stands out for me as the highpoints? When have I been a part of a team (or teams) that really clicked together and accomplished its purposes?” When you have the answer to that question firmly in mind, consider the factors that led to your sense of success. What can you do to replicate those conditions for your next team? How can you involve others on the team in creating a body of knowledge about team success? (I suggest project retrospectives as one technique.) Take the time to learn more about what makes Agile teams move to self-organized, high performance. Your projects and your teams will benefit.

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ⁱ The classic four stages are Forming, Storming, Norming and Performing from: Tuckman, B.W. “Developmental Sequence in Small Groups.” *Psychological Bulletin*, 63(6). 1965.