



INTRODUCTION TO
**AGILE
METHODS**

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Introduction to Agile Methods

these calendars, the front-end web interface needs to be designed to take order information from a consumer; the order is then sent to a back-end order management application where the data is stored and the product purchase is fulfilled.

From an Agile perspective, there may be one product owner for the front-end web application and another for the back-end order management system. To be able to sell these calendars, enhancements will need to be made in both systems. The two product owners will have to collaborate to make sure that the timing of the enhancements is aligned. It does not necessarily mean that the changes to the two systems have to happen at the exact same time, but it does mean that they need to be coordinated, tested, and launched in concert.

Scrum Master

The second of the three defined roles in Scrum is the Scrum master, which is a new and very different position for many organizations. The Scrum master is responsible for leading the development team and working through any issues that arise during a sprint. The specific responsibilities can vary based on the size and experience of the team, as well as the size and complexity of the work effort. There are some consistent personality traits that lead to a successful Scrum master. For example, the Scrum master must be willing to make decisions and actively work throughout the organization to remove impediments or roadblocks for the team. Being Scrum master is not right for everyone: Some people are not comfortable with the visibility associated with the role or taking the initiative necessary to succeed (Schwaber and Beedle 2002, p. 32).

Removing Impediments

Removing impediments is one key role that the Scrum master plays. An impediment is anything that gets in the way of the developers getting their work done. A number of tasks are easier to do when not interrupted, such as studying for a test, building a model airplane, painting a room, or writing code. When we get into a rhythm, we can get a tremendous amount of work done because our minds can focus on the task at hand. What happens when we are interrupted by the telephone or someone asking a question or a noisy neighbor? Any of these things can break our rhythm, and getting started again after an interruption is not as simple as sitting back down and picking up where we left off. “When subjects reengage in a sequence of tasks following an interruption, there is an increased response time, or ‘restart cost’” (Dreher and Berman 2002, p. 14595). This “restart cost” can be significant and can result in lost productivity. These interruptions are one type of impediment. It is the Scrum master’s job to remove as many impediments as possible.

Here are a few other examples:

1. The team in the next aisle plays music while they are working, and they play it so loud that it causes you to lose your concentration. Rather than try to work through it or create a scene by shouting that they need to knock it off, the developer can let the Scrum master know of this impediment, and the Scrum master can coordinate with the other team to find a workable solution; it might be the investment of headphones, or setting a specific time when playing loud music is acceptable.
2. The product owner that you work with does not always provide complete information, and you have questions. But he or she is in meetings all the time, so you spend hours trying to find the person to get your questions answered. This is another perfect item to give to the Scrum master as an impediment: The Scrum master can find a solution that might involve daily meetings with the product owner, setting specific times when the product owner is available, or working out a system via instant message or text message for quick direction. Whatever the appropriate solution, the Scrum master is responsible for clearing the impediment so the developer can write code.
3. Members of the organization stop by your desk to ask questions because you are the subject matter expert (SME) on a particular item; this happens frequently in the workplace and can be a true productivity killer. The people doing the interrupting have valid reasons for doing so—there is a customer waiting on an answer, another team cannot proceed because they need additional information, an executive needs input for something he or she is working on—but the act of stopping what you are doing and shifting to the topic of the question makes it challenging to reengage once the question is answered. The Scrum master can serve as a blocker for this type of activity, by either answering the majority of the questions or creating a predefined timeframe when answering questions will not be disruptive.

There is significant value in having a team member who can remove these types of roadblocks so that developers can spend the majority of their time writing code. The ability to tackle these issues requires determination and stubbornness (Schwaber and Beedle 2002, p. 32), so selecting the right person for the role is important.

Communicator and Liaison

With any project, there are many questions about how something should be done or what exactly is meant in a certain requirement; the Scrum master is the

coordination link to getting all of the necessary answers. This may involve attending a number of meetings or seeking out specific people. The Scrum master is also responsible for conveying information back to the team. If something material changes on a project, such as the proposed delivery date, the Scrum master may be the first to hear this news, and he or she is responsible for ensuring that the team is kept fully informed. Agile strives for “no surprises,” and the Scrum master can assist with this goal by keeping the team apprised of all information.

Adherence to Scrum Best Practices

The Scrum master is also responsible for making sure that the team is adhering to the principles of Scrum. For example, if you have a particularly quiet teammate and another member who is fairly dominant, it is the Scrum master’s job to make sure all voices are heard. That might mean asking specific questions to the quiet team member and paying close attention to the answers. It might also mean delicately informing the dominant team member to stop talking and let everyone participate. This might sound like a small responsibility, but effective team management can be the difference between the success and failure of a project.

Another example is adherence to the meeting schedule, which is explained in detail in Chapter 8, “Tracking and Reporting.” One of the meetings that is part of the Scrum process is the Sprint retrospective. This meeting takes place at the end of each sprint, and it is a time for the team to reflect on what went well in the last sprint and what needs improving in the next sprint. This is a meeting that can be dismissed as unnecessary, but it is actually vitally important to the Agile process. It is the Scrum master’s job to make sure that the team does not cut corners that diminish the effectiveness of Agile.

The Scrum master also needs to hold the team accountable for honoring their commitments. If the team is not completing testing or documentation, the Scrum master needs to work with the team to improve their performance and address any root causes that might have led to the lapse.

The Scrum Master Role

Like the product owner, the Scrum master’s role can vary from company to company and team to team. Here are several variations.

Full-Time or Part-Time

There is debate over whether the Scrum master should assume this role full-time. If you have a large team, many new members, a complex project, a weak product owner, or other similar factors, it might be wise to have the Scrum master

dedicated full-time to a single team, therefore assuming no other responsibilities. Conversely, if your team is small or experienced and working on something well defined, then you might decide that the Scrum master could be a working member of the team, meaning that he or she assumes the Scrum master duties in addition to writing code that contributes to the project. Another approach is to have a single Scrum master preside over more than one team.

Jeff Sutherland (2010), a signer of the Manifesto, recommends full-time assignments, but sees opportunities for flexibility for smaller teams, where the Scrum master is also a working member of the team. Mike Cohn, a well-known author and expert on Scrum, would prefer that a Scrum master serve in only that role, but if there is bandwidth for additional responsibilities, the Scrum master should lead more than one team (Cohn 2010, p. 124).

Permanent or Rotating

Another variation is determining if the Scrum master is assigned on a permanent or long-term basis, or if you can rotate the Scrum master responsibilities among the team members. As with the full-time vs. part-time decision, permanent vs. rotating depends on a number of factors.

If you have a natural leader who enjoys playing the role of Scrum master, then the continuity and consistency of that assignment can be quite beneficial. However, if you have an experienced team who are disciplined about their adherence to Agile practices, then rotating the Scrum master duties might provide a nice variety for the team.

In most instances, though, the Scrum master is a challenging and significant role that deserves respect (Cohn 2010, p. 122). Therefore, organizations in the early stages of adopting Agile should not explore part-time or rotating Scrum masters until they have matured their Agile practices sufficiently.

Who Should Be the Scrum Master?

When a new team is formed, determining who should be the Scrum master is a big decision, and there are several likely areas to search for talent.

- **Technical Lead or Lead Developer**

A common choice for a Scrum master is the person on the team who has demonstrated a capacity for decision making by being the lead developer or the technical lead. These people are usually very proficient at the application and are adept at solving complex problems, so they naturally rise as potential leaders. Whether they are a good fit for the Scrum master role depends on their personality and preferences. First, they must be willing to coach and collaborate with team members versus making

decisions and dictating to the team. Also, they must be comfortable with the visibility of the role, because it often requires more interactions with management and other departments.

- **Project Manager**

Some project managers are a natural fit to morph into Scrum masters, but that is certainly not always the case. The project manager's role in a Waterfall environment is typically that of accountability and enforcement. The project manager would likely have a detailed project plan clearly outlining due dates and task owners. That person's job is to make sure that everyone completes their tasks on time and as expected; this is very different from the role of Scrum master, who needs to serve as a coach and a collaborator (Hunton, 2012). When an unexpected problem arises, some project managers approach it by completing risk matrixes and reassigning tasks and establishing a new timeline, while escalating the occurrence to upper management. The Scrum master would take an entirely different approach: collaborating with both the team and the product owner on what they learned and how it could affect the product. By working collaboratively, the Scrum master would seek a new solution and would actively participate in brainstorming and creative problem solving.

Some project managers can easily make the shift from the command and control practices often associated with Waterfall projects to being collaborative in an Agile environment, but it certainly is not always possible.

- **IT/Functional Manager**

Another often debated subject is whether the Scrum master can or should be the IT manager. Again, this depends entirely on the makeup of the organization. As we demonstrated in Chapter 2, "Organizational Culture Considerations with Agile," moving from a Waterfall environment to Agile can have serious implications to the organization and culture. If your organization has been in Waterfall for quite some time, then you might have IT managers who are accustomed to making all of the decisions. They might be more comfortable assigning tasks and managing the Scrum team as individual employees, rather than a team; if this is the case, then the IT manager should absolutely *not* be the Scrum master. The team will never find its own rhythm if they are being managed in a Waterfall manner. In fact, on many Scrum teams, the managers are not allowed to attend the Scrum meetings, or if they do, they are not allowed to speak.

Conversely, if your team is new or you are working in more of a start-up environment, then it is perfectly acceptable to have the IT manager double as the Scrum master. This makes particular sense if you are constrained in your resources.

Who makes the best Scrum master? As with most things in Agile, the answer is—it depends. Good Scrum masters can be developers, quality assurance (QA) folks, or BAs. In fact, the Scrum master does not even need to be in the IT organization. There have been successful models where the Scrum master is an analyst from account management or a customer service organization. The important thing when choosing your Scrum master is that the person should be able to remove impediments, minimize interruptions, lead the team, and enforce the principles of Agile.

Product Owner + Scrum Master

For an Agile implementation to maximize its effectiveness, the product owner and the Scrum master both need to be enthusiastic advocates for their respective roles. Both need to be strong communicators who are committed to the success of the product and the team, focusing on collaboration and finding creative and workable solutions to the problems that naturally arise.

Review 1 At this point, the reader should be able to answer Review Questions 1–5.

The Team

The final defined role within Scrum is the Scrum team, full of talented people who will ultimately deliver on the project. Like product owners and Scrum masters, there is great variability in how the teams are formed and who is included. Before we dive into the optimal team makeup in size and membership, let's cover the key foundational considerations for an effective Scrum team. It is imperative that a Scrum team operate with trust, transparency, and teamwork.

Working Agreement

One way that trust and teamwork are established and enforced is through the creation of a working agreement: This is a document or set of expectations that define how the Scrum team is going to work together. The working agreement is the first point of collaboration for a new Scrum team as they define their relationships. It is more than just rules of engagement for team behavior; the working agreement ultimately reflects the values and commitment of the team (Derby 2011).