The First Scrum: How Scrum provides energy, focus, clarity, and transparency to project teams developing complex systems

Interview with Dr. Jeff Sutherland, CTO of PatientKeeper, Inc.

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"…The primary driver for beginning the first Scrum was absolute commitment to a date, where failure would break the company. The task: guaranteed delivery of an innovative product to the market that would achieve rapid adoption.

"In a meeting with the CEO, I noted that for years he had received project plans that were supported by Gantt charts. The CEO agreed that no plan had ever delivered the required functionality on time. Many delays had been extensive and hurt the company financially.

"Forcasted revenue on a major new product upgrade was millions of dollars a month, so every month that a project was late cost the company millions in revenue. As the company would operated at a loss for a quarter or more and damage to the stock price would be significant, we could not afford to repeat this cycle.

"Further, I pointed out that the CEO had no view of the status of the software by the middle of the project. He had Gantt charts and reports that looked solid on paper but failed to deliver the software on time. He had never seen a promised delivery date met, and worse, he rarely discovered slippage until it was too late to reforecast company revenue.

"I told the CEO that in adopting Scrum, we set the objectives at the beginning of what Scrum refers to as a sprint. It is the teams responsibility to determine how to best meet those objectives. During the sprint, no one can bother team members with requests. At the end of a sprint, I added, working code that will be demonstrated, so you can see the progress made. You can decide to ship anytime or do another Sprint to get more functionality. Visible working code provides more confidence than extensive documentation with no operational system.

"In the case of this project, the date was six months out, and we established six sprints. The CEO agreed to proceed with the first software development Scrum.

"The first Scrum started with a half day planning session that outlined the feature set we wanted to achieve in a six month period. We then broke it into six pieces which were achievable in 30 day sprints. This was the product backlog. For the first sprint, the product backlog was transformed into development tasks that could be done in less than a day.

"Daily meetings allowed everyone on the project team to see the status of all aspects of the project in real time. This allowed the collective neural networks of the team's mind to fine-tune or redirect efforts on a daily basis to maximize throughput. The result was radical alteration of the software development process by allowing sharing of software resources. Development tasks thought to take days could often be accomplished in hours using someone else's code as a starting point.

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"The meetings were kept short, typically under 30 minutes and discussion was restricted to the three SCRUM questions:

What did you do yesterday?

What will you do today?

What obstacles got in your way?

"By having every member of the team see every day what every other team member was doing, we could make progress by identifying work that could be improved by others. We received comments from one developer, for example, that if he changed a few lines of code, he could eliminate days of work for another developer. This effect was so dramatic that the project accelerated to the point at which it had to be slowed down by outnumbering developers with documentation and testing engineers. This hyperproductive state was seen in several subsequent Scrums, although never as dramatically as the first at Easel.

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"At the end of each month, the CEO got a demo. He could use the software himself and see it work. We then gave the software to the consulting group to use in prototyping consulting projects. This provided an incredible amount of feedback to incorporate into the Scrum product backlog: a list of desirable features to include in the software. At the beginning of each sprint, product backlog is reprioritized before transformation into development tasks. The Scrum adaptability to change enabled the CEO to steer product development more effectively than other project management techniques.

"The CEO saw significant, step by step progress in each increment and he agreed that the product was ready to ship in the fifth increment. It had more functionality than expected in some areas and less in others. We shipped on the day it was scheduled to be shipped.

"Everyone agreed that first, Scrum could meet a deadline; second, more functionality was achieved than expected; and third, there would never be a return to [the old] mentality

"Over the past decade, Scrum has emerged from humble beginnings to a movement involving tens of thousands of projects in hundreds of the leading software development companies worldwide. Properly implemented, Scrum represents best business practice in some of the world's leading corporations.

"It allows teams to operate close to the 'edge of chaos' to foster rapid system evolution, enforcing a simple set of rules for self-organization of software teams to produce systems with evolving architectures, aligning individual and organization objectives, creating a culture driven by performance, supporting shareholder value creation, achieving stable and consistent communication of performance at all levels, and enhancing individual development and quality of life."