

Chris McLernon

CS-250 : Software Design Lifecycle

Prof. Arthur McWain

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ChadaTech, a software design, and development company, has embarked on a transformative journey, transitioning its development teams from a conventional waterfall methodology to a more agile and flexible Scrum framework. This transition began with a pilot project for SNHU Travel, a travel agency aiming to enhance its customer offerings. This paper delves into an in-depth analysis of ChadaTech's experience with the Scrum-agile approach within the SNHU Travel project, offering valuable insights for future organizational decisions.

The success of any project hinges on the collaboration and effectiveness of team roles. Our project team consisted of developers, testers, a Product Owner, and a Scrum Master. Developers played a pivotal role in translating user stories into functional software components by collaborating effectively to create user-friendly features. The Product Owner prioritizes user stories based on business needs, allowing the team to align their work with evolving project goals. The Scrum Master facilitated daily stand-up meetings and addressed impediments, ensuring the project remained on course. While researching Agile development the Spotify model was brought up multiple times There ability to coordinate a fairly complex system of teams "A Spotify Squad, like a SCRUM team, operates as a self-organizing team with the skills and tools to design, develop, test, and release. They have a long-term mission, such as improving the Android client or scaling backend systems, and choose their own work approach, including Scrum sprints or Kanban." (Kniberg & Ivarsson, 2012)

The Scrum-agile approach was instrumental in decomposing user stories into smaller, manageable tasks, enabling efficient progress tracking and ensuring steady advancement within each sprint. During sprint planning, we employed story points to estimate the effort required for each user story and sub-task, effectively guiding our project timelines. The Scrum-agile approach showcased its adaptability when the project confronted interruptions and shifts in direction. For instance, when the project's focus pivoted, the team adeptly reprioritized user stories and incorporated new requirements. Daily stand-up meetings provided a transparent communication platform, empowering team members to address concerns about project interruptions and fostering swift problem-solving."With multiple squads there will always be dependencies. Dependencies are not necessarily bad [...] Nevertheless, our goal is to have squads be as autonomous as possible, especially minimizing dependencies that are blocking or slowing a squad down" (Kniberg & Ivarsson, 2012).

Effective communication was fundamental to our Scrum-agile approach, facilitated through daily stand-up meetings, Discord discussions, and project management tools. This communication culture encouraged collaboration, ensured everyone remained well-informed, and expedited problem resolution. The Scrum-agile approach presented several advantages, such as heightened adaptability to changing project requirements, improved collaboration and communication within our project team, and regular reviews that identified and addressed issues at an early stage. Nevertheless, challenges arose, including initial adjustment difficulties and a learning curve for sprint planning and backlog refinement.

Given the dynamic nature of the SNHU Travel project and the need for flexibility in responding to evolving requirements, the Scrum-agile approach emerged as the most suitable fit. It facilitated rapid responses, ensured transparency, and nurtured collaboration. Its capacity to accommodate changing priorities and manage project interruptions was a significant asset. The transition from a traditional waterfall model to a Scrum-agile approach at ChadaTech, exemplified by the SNHU Travel project, has demonstrated substantial promise. Contributions from diverse team roles, efficient user story completion, and adaptability to project interruptions underscore the benefits of Scrum-agile. Despite initial challenges, the advantages of improved adaptability and collaboration make Scrum-agile an appealing approach for ChadaTech's future projects. This case study offers valuable insights for organizations contemplating a shift towards agile methodologies.

1. Kniberg, H., & Ivarsson, A. (2012, October). Scaling Agile @ Spotify. Retrieved from https://blog.crisp.se/wp-content/uploads/2012/11/SpotifyScaling.pdf