**Strangler Fig Pattern at Blackboard Learn**

Samuel Litton

Bellevue University

CSD380-A348

Professor Darren Osier

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Everyone knows the pain of dealing with an outdated system. However, the Strangler Fig Pattern offers a safe and effective method of updating and modernizing those systems. The Strangler Fig Pattern is a method of gradually replacing an outdated or monolithic system rather than fully rewriting the system in one go. Blackboard Learn utilized the method in 2012 to overhaul their monolithic system to a modular one and had amazing results.

David Ashman, the chief architect at Blackboard Learn, noticed that the number of commits in the company was decreasing while, simultaneously, the lines of code in each commit was increasing. This indicated that the developers were having to spend more time, and more effort coding, to get their commits to work with the older system. He knew that they needed to restructure the architecture of the monolithic system and decided to implement a strangler fig pattern approach.

They created modules that they called *Building Blocks,* allowing developers to work separated from the monolithic system. This gave the developers greater freedom and because Building Blocks communicated with their monolithic system through fixed APIs, they did not have to constantly communicate and coordinate with other teams to ensure their commit would not break the system. It also started to slowly reduce the monolithic system because teams started to move their code into Building Blocks. Building blocks was well received among the teams, as every eligible developer chose to work with building blocks rather than the older, more complicated, system.

After the building blocks architecture was implemented, Blackboard Learn saw an exponential growth in the amount of commits and the lines of code within those commits. This indicated that the developers became incredibly more productive with the new system. They also had less risky commits, as any error would be contained as a small local error within a module, not a major error impacting the entire system. David Ashman summed it up well, saying that “having developers work in the Building Blocks architecture made for impressive improvements in code modularity, allowing them to work with more independence and freedom. In combination with the updates to our build process, they also got faster, better feedback on their work, which meant better quality.”

The results of the strangler fig pattern approach to modernizing legacy and monolithic systems speak for themselves. It is a tried and tested method, that produces a modular and modern architecture but without the stress of completely rewriting your architecture in one go. Breaking the process down into modules that slowly update your system has shown to be more productive and produce impressive results. The strangler fig pattern proves to be the perfect method for this.

References

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