Software Practice for the Business Technology Age: Lessons from Oil-Drilling

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by Pradeep Henry

Software development not only consumes a significant slice of the technology budget, but it is often the trigger for investments in other technology infrastructure. In spite of this big spend, CXOs are often unhappy with the overall returns, if any. Therefore, today's business technology age has a new focus: business outcomes. To make business technology a reality, though, organizations need to adjust their software practice.

How? Well, the lessons come from a rather unexpected place: the contemporary practice of oil drilling.

Software practice in the IT era

Conventional software practice is strong on the technical side. There is a high level of maturity in implementation activities such as technical design, coding and testing. Combine this strong technical side with today's advanced project-management capability, and you can be sure of getting quality software on time and within budget. Considering the strength of today's technical processes, why are CEOs and CFOs continually unhappy with the returns from their investment in business applications? Here's the reason: The business side of software practice largely determines business outcomes, and yet it is shockingly weak.

Often, the only business-side task performed is the gathering of functional and non-functional requirements for the proposed software. Let's ask a few possible fundamental questions: How do we know whether this proposed software is the right one to develop at this time? Does it have the potential to generate the business outcomes that the organization really needs? What a waste it would be to spend, say, a million dollars developing a business application only to find that it is a dry hole!

Whereas investing in a software based on suggestion by someone in the organization is clearly risky, having a business process redesign team identify "an opportunity to automate" is not risk-free either. The separate execution of process-project and software-project typically results in disruption and degradation of existing processes.

Upgrading with the oil-drilling model

The oil-drilling model does two things. Firstly, it refocuses your initial efforts on finding and designing for business outcomes. Secondly, it enables the new focus by blending (instead of adding) business process techniques into software practice. As it becomes the new business side of your practice, it completes the development value stream. This means your first three steps in a software project would henceforth be the ones described below.

1. Wildcatters of the past used to drill where they thought oil was. However, oil companies today, armed with new knowledge and technology, no longer drill before they've first located oil. The software team too should first locate a broad set of business processes having business outcomes potential. Without this first step, the software project is a potential non-starter.
2. After locating oil, companies do not immediately jump into the act of drilling. They prepare a piece of land to support drilling and also identify a specific location to drill. The software team too should prepare. Preparation involves innovating the identified processes and while doing so, defining the boundaries of a software.
3. Having prepared the land, oil companies now start drilling an oil well. The software team should now design the identified software using a business process centric approach. Being stuck with any old design approach would be like looking for oil with equipment meant to drill for water.

Here are a few situations in which to use the oil-drilling model:

1. You have a proposed software
2. You have specific business objectives and want to explore software as a solution to meet those objectives.
3. A management consulting or process specialist team has identified an "automation" opportunity.

It is interesting that lessons for the high-tech software discipline come from a not-so-high-tech discipline. When I first learned how oil finds its way from people's imagination to the gas pump, I was fascinated and saw how technology could

be used to achieve outcomes that an organization needs. Since then, I've been empowering teams to use the oil-drilling model to execute verifiably successful projects for global organizations across a wide range of industries. In such projects powered by the oil-drilling model, software and business process blended to generate outcomes in terms of improved process performance, positive customer impact and improved financial performance.

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About Pradeep Henry

Pradeep Henry is an IT-to-BT change leader at The Evident Group LLC, a company he founded. Currently, he's also working on a book about his oil-drilling model. Henry draws from his unique exposure to 500-plus software projects executed for North American and European organizations. Through his innovative methods and thought-leadership, he played a key role in the fast growth of Dun & Bradstreet spinoff Cognizant Technology Solutions, where he was previously a director. In 2008, he completed executive education programs at Columbia Business School to receive a Certificate in Business Excellence. Henry's blog is at BT Practice and he can be reached at PHenry08@gsb.Columbia.edu.

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