

Lost In Translation

Potential pitfalls of using a hybrid Waterfall-Agile process for software development

Much has been written on the subject of transforming a software development organization from a development philosophy based on the traditional Waterfall process to one based on Agile.¹ Since these two approaches have vastly different foundations, such a transformation is comparable to what people experience after relocating to a different country, finding themselves adjusting to a new culture and learning to speak a new language. Until one becomes comfortable in the new culture and fluent in the new language, and begins to *think* in the new language, there will be a strong reliance on the crutch of thinking in the native language while speaking the new language, during which there is a subtle danger of things getting lost in translation.

It was 1999 when a colleague of mine, born and raised in Puerto Rico, introduced me to the term Spanglish.² The result of native Spanish and English speakers not properly using the other language, she explained that it includes words that are neither Spanish nor English, but are mangled attempts to translate a word from one language into the other. Her simple example was the word *troca*, denoting the Spanish equivalent to the English word for *truck*, a false cognate for the correct translation of truck into the Spanish word *camión*.

I am reminded of Spanglish when I read about organizations where a transformation from Waterfall to Agile is undertaken but does not permeate the entire organization, leaving in place a combination of Waterfall and Agile. One result is where some groups within an organization continue to use Waterfall while others have made a complete switch to Agile, expected where migration to Agile is being pursued in stages across the organization.³ This strikes me as a reasonable blend of Waterfall and Agile for the duration it takes the entire organization to finally have completed the migration.

Another result is where even on the same project there are some who continue to use Waterfall while others are striving to use Agile. This strikes me not so much as a blend of Agile and Waterfall as a collision between them, what we might describe as Agifall, where it becomes a struggle to define a workable process. This hybrid may be the result of decisions made by those who believe the transformation from Waterfall to Agile can be achieved simply by adapting a few new methods while retaining virtually all of the current process unchanged. Perhaps it is not fully understood that becoming Agile most likely will result in discarding virtually all of the current process, an unsettling prospect for many.

Though conventional wisdom suggests a transformation to Agile should begin at the top of an organization and flow downward, some accounts describe scenarios where the motivation to move from Waterfall to Agile is from the bottom up,⁴ such as within a software development group where a few have concluded that their current Waterfall process does not work as well as Agile would, so they begin following Agile principles without first having secured the support of upper management. The attempt by some to embrace an Agile philosophy while at the same time others on the same project are adhering to the traditional Waterfall may well give rise to processes that would be found in neither, processes for which their sole purpose is to accommodate the inconsistencies arising from the attempt to use both strategies simultaneously.

I had this experience on one of my contracts. Although we had a well-defined Waterfall process in place, we began to institute iterative techniques borrowed from Agile. We had some success with the software development and testing by following Agile, but we also were required to track our time against a management

1 For some examples, refer to:

- <http://sunset.usc.edu/csse/TECHRPTS/2005/usccse2005-516/usccse2005-516.pdf>
- Schwaber, Ken and Mike Beedle, Agile Software Development with SCRUM, Prentice Hall, 2001
- Poppendieck, Mary and Tom, Lean Software Development - An Agile Toolkit, Addison Wesley, 2003

2 <http://en.wikipedia.org/wiki/Spanglish>

3 <http://www.accurev.com/blog/2010/06/02/real-world-agile-hybrid-processes/>

4 <http://www.gearstream.com/blog/11/59/Will-Bottom-Up-Be-the-Death-of-Agile.html>

schedule which was aligned with Waterfall stages. As a consequence, we needed to invent a way to facilitate measuring progress against a Waterfall schedule while actually following an Agile process. This spawned a new administrative process by which we could translate our Agile milestones into Waterfall time-tracking stages, a process which would have been unnecessary had we followed a purely Waterfall or purely Agile strategy. Inasmuch as adopting Agile principles would suggest we should endeavor to reduce our dependence on paperwork and eliminate extra processes, it was ironic in this case that undertaking Agile actually caused these to increase a bit.

So for those who might recognize their efforts at transformation to Agile to include adventures similar to those described above, consider that attempting to follow a hybrid process of *thinking in Waterfall* while *speaking Agile* may, as with Spanglish, introduce elements which are found in neither.

Jim McDonough – January 9, 2011