Software Engineering and Business Process Management: Interpretatio, Imitatio, Aemulatio

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EXTENDED ABSTRACT
Where software engineering (SE) is a discipline that is at least 50 years old, Business Process Management (BPM) has only reached half that age at this point. I argue that there is a reason for the members of these two communities to have an interest each other’s work. After all, there are striking similarities – as well as subtle differences - with respect to their primary artifacts of interest.

In this talk, I will discuss the following angles for a comparison between software programs on the one hand and business processes on the other: the distinct design-time vs. run-time perspectives; information processing as a mutual, core function; the compositional nature of the artifacts; the issue of humans-in-the loop; and the maintenance/sense-making aspect.

Given the head start that SE has over BPM it is not surprising that in certain respects SE work serves as a huge source of inspiration for BPM researchers. This is clearly visible with respect to design principles and the use of metrics to evaluate the quality of designs. In this talk, I will provide various examples of clear links between the two fields. As a cautionary tale, I will also use the example of a failed IT implementation where the reliance on metrics to explain what has happened is arguably too big.

In other respects, SE and BPM go head to head with respect to their maturity in solving similar issues in the design and execution of software programs and business processes, respectively. Case in point is the issue of correctness, which has a clear significance in both fields and where notable progress has been made to ensure its existence.

There is one domain that I would argue where once SE research was clearly more mature in comparison to BPM research, but where the roles may have turned in the past years. This is the area of experimental (or empirical) research. While SE researchers are still prevalent in describing and dealing with the ways to properly design experiments, BPM researchers - through the influence from the Information Systems community - are more naturally inclined to both substantiate their hypotheses and embed their findings in general theories.

My conclusion is that the communities can continue to profit from observing the developments “on the other side”.

978-1-4799-2941-2/13/$31.00 ©2013 IEEE