

Software Economics Newsletter

Happy New Year – We would like to start 2019 by wishing everyone “*Happy Holidays*” and “*New Year.*” Needless to say, a lot is happening in the world of software economics and measurement especially as it pertains to agile, agile-at-scale, automata, DevOps, and smart devices. We will attempt to capture what we are doing to keep up with these developments in this new issue of our newsletter.

January 2019 Edition of Software Benchmarking Report to be Issued -

The first release of our Software Benchmarking report for next year will be issued in January 2019. This issue will be based on a new and improved data set which includes findings based on a subset of completed software development efforts from our database of over 20,000 completed software efforts, none of which is over 10 years old. We classify our benchmarks into 20 applications domains, two of which are new, to make the results portrayed more relevant to our subscribers.

Each release of our productivity benchmarks contains improvements suggested by our subscribers. This new edition contains the following changes:

- We have provided results for integrated and enterprise-wide business systems. This is significant because many of our subscribers want productivity information for such classes of systems.
- We have updated all of our productivity, cost and quality results to reflect our analysis for the period from 2008 to 2018. Results graphically portray the mean and standard deviations for our datasets.
- General conclusions and trends are also provided to provide an industry-wide picture.
- We have also updated our technology watch lists in general and for each of our application domains.

New Options Available for Subscribers – Besides copies of our benchmarking report, current subscribers will also receive the following products and services starting next year:

- Copies of our study results will only be made available to our subscribers.
- Besides access to our experts, we will visit our clients annually to discuss our current benchmarking results and solicit inputs for studies and improvements (travel costs are not included).
- As in the past, we will staff a hot line to answer questions about our benchmarks and study results throughout the year.

We publish our software productivity benchmarks twice a year in the January/February and June/July timeframes. These reports are sold on an annual subscription basis. Substantial university, government and not-for-profit discounts are available for new subscribers. If you would like information about how to subscribe to our software benchmarking service, please contact us at info@reifer.com.

DevOps Study Launched – In response to subscriber inputs, we have initiated a study looking at the impact of combining software development and DevOps. Most people believe that that this current trend impacts software productivity, cost and quality positively. To determine if this is so, we have started to collect data to bound the impact empirically at the industry level.

New Data Sharing Agreements – We are pleased to announce that we have entered into data sharing agreements with eight new firms this quarter. We have now signed agreements with over 50 organizations to provide data across many of our applications domains. However, be advised that it will take at least 6 months before we can take advantage of this data as we check to ensure that it complies with our definitions, standards and conventions. While straight-forward, this is a time consuming process.

Agile Quality Book Wins Award - Don Reifer's new book entitled "Agile Software Quality," won a "Best in Class" award. The two volume set emphasizes the need to design quality into the software product. Guidelines on "how to" accomplish this feat is provided along with examples and explanatory text. Forwards by Mike Cohn and Scott Ambler, both leaders in the agile field, introduce you to each volume. A common example is used across both volumes to illustrate how to put the concepts into practice. The book is available on Amazon in paperback and Kindle formats.

Impact of AI Technology Study Underway – We have received a contract from one of our foreign customers to study the impact of artificial intelligence (AI) and machine learning on software development operations. The six impact areas that we are charged with investigating include: automation, cost to develop and deploy, displacements (and what to do about them), improvements, potential products and services, and timing. The innovations that we are currently pursuing include: (1) deep learning via automata for visual design tasks, (2) knowledge oracles or hubs to assist developers, (3) test avatars that automatically generate and run tests, (4) sustainable designs with self-diagnosis and repair capabilities, and (5) tools for smart collaboration, analysis, guidance and support. We are also investigating what organizations need to do when software workers are replaced by smart machines and automation.

New Agile Webinar Series a Hit with Subscribers – Our new webinar series on agile topics was a hit with our subscribers. By working with our subscribers, we were able to tailor each offering to support their best practices and agile experiences using examples taken from their recent experience. One-hour webinars that were offered in the series include:

- Agile value streams – how to quantify the benefits (two sessions)
- Managing agile-at-scale in large enterprises – unveiling the mystery (one session)
- Agile software quality – “one team, one approach, build quality in” (two sessions)
- Agile estimation – determining how much it will cost and how long it will take to deliver (one session)
- Agile analytics – using your data to maximize your yield (one session)

Based on demand, the following two additional seminars are planned to be aired in 2019:

- Agile product management – the tricks of the trade (two sessions)
- Agile for executives – the why, what, when, where and how (one session)

More webinars are planned for 2020. The series is fully subscribed for 2019. Those interested in being put on our waiting list for these offerings can contact us for more information.

Wow, We Have Been in California Two Years – the consultancy has now been in operation for over a year in our California location. Our contact information is:

- Donald Reifer, Consultant, 79410 Azahar, La Quinta, CA 92253

Our phone number [(310) 922-7043] and web site (<http://www.reifer.com>) remain unchanged.

Web Site Blog Updated – If you have not visited our web site, you should as it is continuously being updated. Besides providing an overview of our efforts, the site provides interesting postings and a blog provides much more information about items identified in this newsletter.

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