



**SOCIETY OF
ACTUARIES**

Article from

CompAct

April 2019

Issue 59

Letter From the Editors

By Hugh Lakshman and Bill Cember

My fellow members of the Society of Actuaries Technology Section, we would like to welcome you to the first edition of *CompAct* for 2019!

First, we want to thank you all for the feedback on the fall edition of *CompAct*. We will use it to continue adding to and improving the newsletter.

We also want to acknowledge the fine work done by our outgoing editor. Ravi Bhagat has completed his editorial term, rounding up articles and working to ensure that our members receive useful content. Ravi is not going far, though, as we also congratulate him on his new role as vice chairperson of the Technology Section and look forward to his leadership this year.

As a reminder, the goal of our newsletter is **to provide a basis for developing technology proficiency through educating our readers and to promote technology discovery through the exploration of innovative and disruptive topics.** To that end, we have assembled articles that cover a diverse range of topics, with technology as a focus.

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Lastly, we encourage you all to continue to collaborate with us by submitting articles or topics that interest you or sharing any other feedback you might have. We really appreciate the contributions and feedback. We can be reached at hugh.lakshman@ibx.com and william.cember@prudential.com.

In this edition of *CompAct*, we have seven articles that cover a diverse range of topics.



“Robotic Process Automation: These ARE the droids you’re looking for.” In our first article of this issue, Aaron Hartman of FIS discusses ways to use robotic process automation in an actuarial department. With the ever-evolving nature of our regulatory environment, Aaron sees automation as being necessary for organizations to adapt quickly to these changes and offers an interesting take on improving automation.

“Actuaries, Are You Paying Attention? Global Megatrends in Technology.” Blockchain, wearables, the internet of things. In our next article, David Alison and Thomas Bart of KPMG talk about these “global megatrends” that are affecting everyone. They then extrapolate these trends to make five predictions about the future of the life insurance industry.

“Deep Learning and Actuarial Experience Analysis.” In this article, Kevin Kuo of RStudio, Bob Crompton of Actuarial Resources Corporation and Frankie Logan of KPMG apply machine learning to a practical actuarial problem and compare their results with the standard actuarial techniques currently being used.

“Transform Your Business With Predictive Analytics.” Predictive analytics is having an impact on the way we practice as actuaries. We even have a whole exam dedicated to this topic now! In this article, Martin Snow of Atidot talks about some practical and effective ways he has seen predictive analytics used in our industry.

“Spreadsheet Controls Add Risk Resilience.” Every actuary uses spreadsheets, but how do you ensure that the data in your spreadsheet is accurate and complete? In our second article, Diane Robinette, CEO of Incisive Software, offers her insights on controls that can help solve some of the common data integrity issues in spreadsheets. This is the first article of a two-part series on this topic.

“Need for Speed: How to optimize models for maximal run efficiency.” Who doesn’t wish for faster model run times? In this article, Vincent Xuan, Housseine Essaheb and Benjamin Stirewalt of Prudential discuss ways to minimize the challenges that lead to slower run times. They also tackle the question of multiple models versus a consolidated model approach.



Bill Cember, FSA, MAAA, is a director and actuary with Prudential Financial. He can be reached at william.cember@prudential.com.

“A Smart Way to Accelerate Model Runs Through In-Force Data Compression.” Our final article of this issue begins with a very interesting introduction to cluster analysis. Ramandeep Nagi, Dean Kerr and Xin Yao Li of Oliver Wyman then describe a method to apply cluster analysis to reduce model run time when running computationally intensive models. ■



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Special Announcement

“**Actuarial Innovation and Technology**” is the next Strategic Research Initiative and should launch soon. It will highlight the evolution of technology as it applies to the actuarial profession, industry and population trends. To learn more about Strategic Research Initiatives, click here: https://www.soa.org/strategic-research/default/?_ga=2.145333556.189334491.1553009745-1918142395.1553009745