

From the Editor's Desk...

JSS Technical Editor
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Principles Again

I recently spoke with a friend of mine who is a retired professor of pharmacology at a medical school. My friend used to be the course coordinator for the pharmacology course that is taught by about 10 individual professors (each instructor gives three or four lectures). The coordinator and other faculty have the responsibility to cover the subject thoroughly so that the students become capable physicians and get good grades on the national board exams.

I wondered how they determined the body of knowledge for the course; my friend said that they based the course on what they (and most pharmacology professors in the United States) consider to be a “nearly perfect” textbook on the subject [Ref 1]. Instructors must cover all the material related to their topic that is in the textbook and can add extra material only with permission from the coordinator. Some professors like to expound on subjects that few people care about and many people disagree with (a situation familiar to us in system safety). This is inappropriate for medical school courses because students have an extremely large amount of material to learn and non-mainstream information will detract from the desired result of good marks on the board exam.

Do we have a “nearly perfect” book that covers the subject of system safety? If this book did exist, how would we know?

During a recent Zoom meeting on the International System Safety Society (ISSS) initiatives, I noted a few remarks of interest. One individual asked, “What is the gospel of system safety?” Later, they changed the question to one about “principles of system safety.” I was pleased to hear this, as it correlated with the point I was trying to make in my “From the Editor’s Desk” article on principles in the Fall/Winter 2020 issue of *Journal of System Safety*.

During another part of the discussion, it was noted that we already have a great deal of good training material and we should just get going on the certification and curriculum development. I think we need an ISSS-ap-

proved set of system safety principles (this would include key definitions and mental models) that would serve as a tool allowing us to extract the “perfect book” of system safety out of the existing materials. This is a needed predecessor task that, in my opinion, must be done in order to make meaningful progress on our initiatives.

The first technical paper in this issue “Vaccine Safety” is by Dr. Richard Zito. This paper focuses on the development and possible issues with the COVID vaccine. Note that for the discussion of rumor 12, do not conflate “fully vaccinated” and “successfully vaccinated.” The CDC says that only the “breakthrough” infections of unsuccessfully vaccinated individuals are capable of spreading disease after full vaccination (i.e., two initial doses of mRNA vaccine, plus a booster of the mRNA vaccine, six months after the second dose). Note that this paper represents the scientific knowledge from a snapshot in time of the early 2021 timeframe.

The second technical paper, “New System Safety Process for New Business Opportunities” by Mark A. Vernacchia, outlines an approach to developing and implementing a systems safety process for new business applications in industries without existing system safety processes.

The third technical paper, “Workflow between ISO 26262 and ISO 21448 Standards for Autonomous Vehicles” by Kaushik Madala, Carlos Avalos Gonzalez and Gokul Krithivasan, describes a proposition for a detailed workflow between ISO 26262 and ISO 21448 standards.

The “TBD” column by Charlie Hoes discusses the collapse of the Champlain Towers South, while the “System Safety in Healthcare” column by Dev Raheja discusses the application of artificial intelligence to system safety.

As usual, I welcome your comments, letters to the editor and article submissions.

Regards,
Chuck

References

1. Goodman, L. S., L. L. Brunton, B. Chabner, and B.C. Knollmann. *Goodman & Gilman's Pharmacological Basis of Therapeutics*, McGraw-Hill, New York, 2011.