The Wikipedia article is biased toward a particular industry and approach that is quite different from how most of us approach the profession. It made me wonder who had written the materials, if the System Safety Society was involved, and if we had an official opinion on the subject and wording.

My experience with the process chemical industry’s approach to system safety is that it tends to focus on what happens inside a system of pipes, valves and reactors, but misses much that happens outside of that boundary. I have reviewed several safety analyses performed by large and reputable firms, only to find that what I was reviewing was closer to a reliability analysis than a safety analysis — and that the analysis missed whole classes of safety issues that were deemed to fall “outside” the boundary of their defined system. Many of these would impact the safety of the process, but were missed because they were from outside influences and, therefore, not part of the study. These typical process safety analyses may be necessary and appropriate, but they are certainly not exhaustive or “system safety analyses” as we know them to be.

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I wrote a question to the "virtual chapter" on this topic and received a couple of interesting (and troubling) responses. One response was that a year or so ago, the G48 committee worked on this problem and made some recommendations and changes to the Wikipedia article. However, the changes were then removed by some unknown entity. Another response was from an individual member who went through the same exercise, only to have that material removed as well. It seems pretty clear that some entity or individual has taken ownership of this material, and it also seems that this entity is not the System Safety Society.

This brings up a couple of issues. One has to do with who should be authorized to write materials such as this in the public media? It seems to me that the Society should have some say in this matter. It seems crazy for individuals to independently describe the field as if they were the final authority, even if that individual happens to be me! Individuals and independent organizations invariably have biases and opinions that are based on their experiences and training, but which might not be applicable in a general way. This can, and does, result in much confusion about the meaning of terms, analyses and recommended approaches.

I am always concerned when any independent entity writes materials from the point of view of being "the" expert in the field. There are no overall system safety experts because the field is much too broad, and its application gets biased by the specific demands of individual projects. I probably fit the definition of being an expert in the field, having practiced as a consultant for almost 30 years, having a CSP in system safety practices, being a Fellow member of the ISSS and more. However, I am certainly not in any position to tell anyone that I know the definitive description of system safety. I have some opinions and insights into the field, but I think it is critical for the profession as a whole to "own" the field and its definitions. I suggest that we form a Society committee to provide this kind of material to help ensure that we are speaking with one voice. The approach of watching and waiting for others to define, and re-define, the terms and approaches results in a steady drift that is pushing us out of the market.
It seems to me that the System Safety Society should be the owner of the meaning of definitions, analyses and approaches. If industries or nations want to change those terms to suit their needs, of course they can do so - but there should be a way to check back to find out what the terms really mean. As it is, there is a constant shifting and changing that is unsettling to folks such as myself, who are in the position of trying to interpret the results of studies, or to perform analyses.

The petroleum industry has taken some of the concepts of system safety and applied them to a narrow subset of problems that apply to what happens inside the pipe system, often leaving other safety issues to other solutions. This tends to relegate the safety expert to being more of a guide at engineering working meetings, performing HazOps studies and the like, rather than being allowed to dive into the nitty-gritty details of the problems. This is called "system safety," but often barely touches on what could be done with a comprehensive system safety program. My experience in working within this industry is that it is much closer to a reliability assessment than a system safety analysis.

The rail transit industry is interested in and active in system safety, but keeps pushing hard to limit its scope to the "train control system" - an important element, but one which does not include all of the important issues. There is also a constant pressure to re-define the meaning of terms such as "risk," creating different meanings from those used by other system safety professions. Good work is being done in the field of train safety, but it seems to be getting further away from what I consider to be system safety. This might be good and appropriate as long as it stays in that industry; however, we wouldn't necessarily want those definitions and approaches to bleed over into the general definitions.

There is a steady push in the European community to re-define system safety terms into prescriptive requirements that sound like risk-based analyses until you get deep into the details. An especially interesting example is associated with the electrical standards associated with safety PLCs. These standards have re-defined "risk" and "acceptable risk" in such a way that it is almost impossible to meet the standards without using a particular company's patented designs, and almost impossible to fail to meet the standard if those devices are used. Risk has been defined in such a way that as long as you meet the prescriptive requirement, it is always "acceptable," and it is always "unacceptable" if the prescriptive requirements are not met. The use of the term "risk" in this context no longer has much meaning other than that the prescriptive standards were, or were not, met. Many ANSI standards in the U.S. have similarly used terms from system safety, but modified them so that the analyses, decisions and processes bear little resemblance to system safety as we know it.

For example, if risk doesn't mean risk, or if the meaning of likelihood and severity are not consistently defined, then we start talking like we are in the Tower of Bable — too many languages
being used and people no longer understanding each other. To make matters worse, the words to
the many languages are the same - it is just the meanings and grammar that are different. It is my
opinion that, as a Society, we should make a coordinated effort to maintain ownership of our
profession.