

TRIZ for Six Sigma – an e-book by Geoff Tennant

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The reviewers came across this book while doing a TRIZ search on Google. A banner advertisement for Six Sigma TRIZ caught our attention. We downloaded the demo version from www.sixsigmatriz.com and having read the introduction decided it was worth paying to unlock the full contents of the e-book.

The reader who starts and stops reading has to remember where she was--the system doesn't not take you to the place you left off. The security system that doesn't let you print out bothers us—we are more comfortable reading in non-wired environments, making pencil notes, etc. Font size control --nice gimmick, works well, we were able to read comfortably from the 10 inch screen of a sub-notebook.

We found the book a very interesting read and were delighted to see that straightforward terminology was used throughout. The author quotes from Altshuller throughout the book and I would be very interested to know which books and papers were used in the preparation. (There are no references given in the book).

The book concentrates heavily on the forty principles and gives some interesting names to some of the principles. We are not sure what non-UK readers would make of the “TARDIS” used to describe the nesting principle. The diagrams used to illustrate the principles were interesting and the choice of a roll of toilet paper to illustrate cheap short living articles would be recognised worldwide. One criticism was that there was only one use of a moving graphic in the whole book, although given the price of the book £7 compared to £50 for most paper TRIZ books this might be a harsh criticism.

On the positive side, we liked the terminology of idle resources and also the use of the term dilemma for contradictions. The contradiction matrix was only introduced on page 140 of 151 pages with the emphasis being on how to use the principles themselves rather than starting with the matrix. There was also an interesting comparison between SCAMMPERR and the 40 principles. We were also not unduly upset that S-Fields were not covered, although the 76 principles were mentioned.

On the negative side, we felt the section on trends was uninspiring; although this may be due to the fact the book did not draw on the more recent work which has expanded on Altshuller's small number of trends. This was the one part of the book which lacked appropriate illustrations – the rest of the book was well illustrated. I felt that the section on patents should have had some links to some of the patent websites, although most readers should be capable of finding these for themselves. The section describing the S-curve ignores or contradicts the Numbers and Levels curves. A lack of diagrams makes this section a bit tough to follow. Finally, there was no reference to other TRIZ books or researchers. There was one external link to the TRIZ-Journal and Darrell Mann got a mention.

Six Sigma was referred to constantly throughout the book, explaining where, when and how, the TRIZ tools should be used to enhance 6 sigma. We particularly liked his

point that not only could TRIZ could be used to enhance 6 Sigma but that 6 sigma could also be used to enhance TRIZ.

There is a very nice section on the definitions of a system in the Six Sigma terminology, and how it relates to the TRIZ terminology. Somewhat surprising is the fact that Tennant uses 9 windows only in the time sequence sense, not in consideration of the different solution pathways possible for preventive and corrective actions. There is a nice discussion of tool-action-object. But, an opportunity was missed to point out that this analysis can help a lot during the M and A phases of DMAIC and the decisions to improve, replace, or simplify in the DFSS process. This information is a great tool for Black Belts to use with teams to get to root cause (facilitator leads the group through developing a function diagram). There is a very nice section on extracting the real contradiction from the messy statement of the problem, and the value of getting to a clear definition of the contradiction. We were surprised that Tennant didn't go back to the function analysis section, since the two stages of problem identification flow together very nicely. The resource section was very well done. There was an absence of a possible tie to catalog the resources when in the "gemba" (the actual place of use) in the QFD phase of DFSS or the MA phases of DMAIC.

To conclude, a very interesting book, based on sound common sense and written in simple English.

We know nothing about the author and would have cut and pasted the "About the Author" section from the book. However the book is protected for copyright reasons. If people want more information about the author download the trial version for free. Perhaps the TRIZ-Journal should interview the author?

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