

The Checklist Manifesto: A Book Review

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The author of the book; "The Checklist manifesto. How to get things right"- Dr.Atul Gawande is a respected endocrine surgeon, a MacArthur fellow, a New Yorker, a staff writer, and an Assistant Professor of Surgery at the Harvard Medical School. He's a frequent contributor to the *New York Times* and his advices on public health issues have been used by the administration of President Barack Obama. In his book, the author advocates the use of checklists as an organizing and pre-planning tool, to prevent simple mistakes as well as to handle complex procedures. The book stresses the fact that a well designed checklist can further improve the outcome of even the most efficient teams. The book has 9 chapters which are filled with anecdotal experiences, all of which make for a compelling and an easy reading.

The author traces the origin of checklists to the airline industry of the 1930's, when the American Air Force was choosing its new bomber. The Boeing company's new model, B-17, which was considered as a very complex machine and was being tested by an experienced pilot, crashed, because the pilot forgot a simple and routine step. Since then, the humble checklist has become an inherent part of the aviation culture. Checklists entered the medical culture during the 1960s, when surprisingly it was not the doctors, but the nurses who embraced the idea of creating a checklist of the patient's 4 vital signs, for themselves.

In 2001, Dr. Peter Pronovost, a critical care specialist at Johns Hopkins Hospital, decided to develop a checklist to try and to tackle the central line infections. It had 5 checklist items like hand washing, sterilizing the patient's skin with antiseptic, using sterile drapes over the entire patient, putting a sterile mask, gloves and gown and finally, putting a sterile drape at the line insertion site. If the doctors didn't follow every step, the nurses had a backup from the administration to gently remind the doctors and to intervene. In the first three months of the project, the infection rate in Michigan's ICUs decreased by 66%. In the first eighteen months, an estimated 1500 lives and \$100 million were saved. These results were

sustained for almost four years. This study, which was called "The Keystone Initiative", published its results in the December 2006 volume of the *New England Journal of Medicine*.

In 2008, Dr. Gawande worked with the World Health Organization to test the checklist idea in eight hospitals around the world, which varied from a remote rural installation in Tanzania to a high-tech university facility in Seattle, with a budget which was more than twice of all of Tanzania's financial resources. All the 8 hospitals saw the rates of the major postsurgical complications drop by 36% in the 6 months after the checklist was introduced; the deaths fell by 47%. The checklist has since been adopted in around ten percent of the American hospitals.

The simple act of introducing oneself to the patient by name in the operation theatre was shown to improve the functioning of the medical personnel and the outcome of the procedure. The author has also confessed that using a long checklist was actually tedious and that he only personally used it, so that he was not called a hypocrite. He later developed a simpler checklist which helped him in preventing many mistakes before a surgery.

The author has written about the Flight 1549 which took off from the La Guardia airport, New York City, which struck a large flock of Canadian geese over Manhattan, lost both engines and famously crash landed in the Hudson river. The pilot, Sully Sullenberger used Boeing's checklists to avoid and saved 155 lives who were onboard the flight. In the construction industry, skyscrapers are kept safe due to extensive "communication task" checklists, which ensure that all the teams talk to each other periodically and solve their problems.

This book drives home the point about managing complicated tasks by using the simple tool of a checklist, which has made a difference to many lives everywhere. This book has been published by the Penguin group and it has reached the *New York Times* bestseller list in 2010.

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