

Indian Computer Science (CS) & Information Technology (IT) Academic Reform (Past) Activism Blog Book

**eklavyasai.blogspot.com
(main work years: 2011 to 2014)**

**Ravi S. Iyer
and others**

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**Indian Computer Science (CS) &
Information Technology (IT)
Academic Reform (Past) Activism
Blog Book**

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(main work years: 2011 to 2014)**

**Ravi S. Iyer
(with some contributions from others)**

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Social media work of Ravi S. Iyer

- About Sri Sathya Sai Baba and more: <http://ravisiyer.blogspot.com>
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- Indian CS & IT Academic Reform (Past) Activism: <http://eklavyasai.blogspot.com/p/table-of-contents.html>
- Course material related to computer programming (software lab.) courses: <http://raviiyerteaches.wordpress.com>
- Misc. topics: <http://ravisiyermisc.blogspot.com/>

Email: ravi@raviiyer.org

Facebook: <http://facebook.com/ravi.s.iyer.7>

Twitter: <http://twitter.com/RaviSaiIyer>

My motto: Service to Society is Service to God

Dedication

To the field of software development (international),
which gave me a decent livelihood
and a decent life

Main author Ravi S. Iyer created the eklavyasai.blogspot.com blog and used it from September 2011 to play a part-time, peaceful and amicable, Indian Computer Science (CS) and Information Technology (IT) academic reform, Internet-based activist role. His focus was on improving the practice of software development in Indian CS & IT academia. But he thought that it is such a vital part of the CS & IT field and that it is so poor in many parts of Indian CS & IT academia, that he referred to his efforts as Indian CS & IT academic reform activism.

Other contributors to the blog have given their views on certain topics. Main work period has been from 2011 to 2014 with a little work later, off & on. The main author is no longer active in this area. This book is aimed at helping other activists involved in improving the practice of software development in Indian CS and IT academia to get the views of the blog in a convenient form. The book may also be of interest to similar activists in other countries.

Main author Ravi S. Iyer is a Physics graduate from Ruia college, University of Bombay (Mumbai) who was industry trained and later self-taught in software development. He worked in the international software industry (US, Europe, Japan, South Korea, India etc.) developing systems as well as applications software (CS & IT) for over 18 years after which he retired from commercial work. Later, mainly as a "visiting faculty", he offered free service of teaching programming courses (lab. courses) and being a "technical consultant" for student projects in a Maths & Computer Science department of a deemed university in India for 9 years.

For at cost or minimum price printed book and free ebook visit <http://bit.ly/indian-cs>

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28th February 2020

Ravi S. Iyer

Puttaparthi, Andhra Pradesh, India

Preface

This blog book and associated eklavyasai.blogspot.com blog are part of my humble give-back contributions in gratitude to the field of software development where I earned a decent livelihood, helped fulfill my family obligations which was made possible by my software profession earnings and enjoyed my work most of the time. I was in the software industry from March 1984 to Aug. 2002 joining it as a trainee programmer, progressing over the years to Programmer/Analyst (software developer), Project Leader, Project Manager and Software Manager finally in 1990 (all positions were as employee of software companies). From around March 1993, I became a freelance corporate trainer in software development (programming courses) and later an independent technical consultant (no longer an employee) which lasted till I took commercial retirement from the field in Aug. 2002.

The software development (SD) field enabled me to make great friendships with fellow software developers, and others like support staff and managers in software companies that I worked in or interacted with in India as well as outside India, get exposed to life in USA and Europe over assignment stints there totaling around 3 years, and get interesting exposure to South Korea through a short around 2 month stint there. My SD field work also involved interesting marketing trips to Europe and Singapore. It enabled me to retire from commercial work at 40 years of age to pursue my spiritual aspirations while leading a simple, single (unmarried) spiritual aspirant life.

The logical analysis skills which I had learned in school and college (I am a Physics graduate), were honed by the SD field through analysis of complex programs and large software systems. Software design and architecture to create technically sound software systems were taught to me by the SD field. It taught me that being honest about mistakes made by me, some of which were pointed out by peers and customers, rather than go into arrogant denial, was the way to produce better software designs and code. I learned that in software code and design, arrogant denial does not overcome truth, even if denial may cloud the truth for some time. Eventually it is the truth that triumphs over falsehood including arrogant denial of truth. The computer machine as well as the SD field in general is awesome in how they do not tolerate falsehood and how truth always triumphs on the computer machine and in the SD field in general. I learned to overcome the egoistic discomfort I initially felt when design reviewers pointed out flaws and suggested improvements in my designs, and matured as a software designer to the stage where I humbly and wholeheartedly welcomed and indeed, craved, for suggestions for improvement as well as flaws being pointed out, in my designs by peers.

Handling people, understanding their interests and views, motivating them, giving them reasonable freedom in their work, and cherishing and celebrating team achievements were taught to me both by my SD field management work and also by learning how managers that I reported to, and my peers handled me and my many human flaws. The great amount of literature and documentation that I read while in the SD field on technical as well as management and business related matters played a vital role in significantly expanding the horizons of my mind. It is the SD field that made me grow as a person from a Physics graduate job-seeker to a well settled and confident man who either knew his limitations or, especially in initial stages of my SD field career, was brutally made to realize such limitations by some mistakes and initial failures, and worked within those limitations to deliver on SD field work. Later in life, this growth as a person positioned me to seriously look at and write on larger challenges of understanding ethical/moral norms as well as existential reality of life from an individual perspective and from a larger community perspective, and the role of spirituality & religion as well as rule of law (of the state/country) in those areas, in our times and also in the past.

My bio-data and software industry work experience are given in an appendix of this book. My self-published book titled, "Autobiography of an Indian Software Techie and Spiritual Aspirant – Part 1" and sub-titled "Covers Mumbai & Dombivli based life with some foreign stints, till 2002 (age 40)" covers my software industry work period in a hastily written manner (due to lack of time; my apologies to readers).

<https://ravisiyer.blogspot.com/p/autobiography-of-indian-software-techie.html> [short link: <http://bit.ly/2GVctBG>] has the links for free download of ebook version of above (part autobiography) book as well as paperback sale page links.

I take this opportunity to express my deep gratitude to all the individuals, groups of individuals, companies and organizations including educational & research institutions that created, sustained and developed the software development field. This includes computer scientists, technologists (architects, designers, developers, quality assurance engineers etc.), teachers (including corporate trainers), (business) entrepreneurs, investors and, last but not the least, users.

Another aspect of my humble give-back contributions to the software development field was my stint in a Department of Mathematics & Computer Science in a deemed university in South India, where as free service rendered as a spiritual offering, I taught software lab. courses (software development/programming courses) mainly to Masters students in Mathematics and Computer Science fields, and guided student project work related to software development at Masters level (M.Sc. Mathematics and M.Tech. Computer Science) for around 9 years from Jan. 2003 to Mar. 2012. During this period I had designations of Honorary Staff, Honorary Faculty and Visiting Faculty. I also additionally played a partial Lab. Manager role from Jan. 2003 to around Jan. 2008. I should also mention that I have taught a few software lab. courses to Physics Masters students in this deemed university.

An appendix in this book gives details of the software lab. courses I taught in this deemed university.

The eklavyasai.blogspot.com blog grew out of my exposure to the challenges faced in Indian Computer Science (CS) and Information Technology (IT) academia in teaching software development well to its students.

A few friends have made significant contributions to the eklavyasai.blogspot.com blog which is the basis for this book. Thanks guys. The eklavyasai blog lists the contributors here: <https://eklavyasai.blogspot.com/p/contributors.html>.

The contributors/friends who agreed to have their pen-name/name mentioned in this book are:

1. Anakin (pen name)
2. Vaddadi Kartick – (pen name used in eklavyasai blog: Picard)

The contributors usually do not have their name/pen name mentioned in the blog posts and associated parts of this book, but are named in a few articles. They are usually referred to as simply friend (or correspondent). Any content in the book that is not shown as having been contributed by somebody else, can be presumed to be written by me.

Besides the above mentioned contributors, some other email correspondents, which include some leading international Computer Science academics & industry figures, have also contributed to the eklavyasai blog by agreeing to me sharing some of their email responses on this blog. However, I have included only some of their comments in this book due to permission issues. But I will be referring to those comments which I have not included in the book by directing readers to the associated blog post.

One particular international software industry as well as Computer Science academic person, spent a lot of his valuable time in sharing his views on the matters raised in eklavyasai blog, and gave great encouragement to me to do that work. He prefers to be anonymous and so I am not mentioning his name here. I thank him profusely for the views he shared with me on eklavyasai blog posts and related matters, and for the encouragement he gave me.

Readers are free to disagree with the views expressed in this book and associated blog. I and other contributors have expressed our views (at that time). If some of those views are helpful, or in future become helpful to some readers then the effort put in by me on the blog as well as this book would have had positive

impact. However, even if that does not happen, that's fine by me. I am very satisfied that I have shared my views and thoughts and suggestions, along with those of other contributors, on the important issue of improving the teaching & practice of software development in Indian Computer Science (CS) and Information Technology (IT) academia/higher education, and through that I feel as if I have done my duty to my beloved field of software development which played a big role in making me what I am today. Note that some of the views, thoughts and suggestions in this book may apply to other countries' CS & IT academia/higher education.

Ravi S. Iyer

1st March 2020

Truth Telling - A Tough Job

Associated blog post date: 2nd Oct. 2012, link: <http://eklavyasai.blogspot.com/2012/10/truth-telling-tough-job.html> , short link: <http://bit.ly/truth-t>

Trying to be a truth-teller in today's world is a tough job. It is an unpopular affair.

I recently saw a few videos and read articles about how the great physicist Feynman faced the same challenges when he investigated the Challenger disaster. It was an eye-opener to me that even such a world-famous physicist had to face significant resistance from powerful administrators. If you have not seen it I recommend you see this 4 min 42 sec. video, Richard Feynman - Space Shuttle Challenger Investigation, [archived link:

<https://web.archive.org/web/20120225062425/http://www.youtube.com/watch?v=UCLgRyKvfp0> (short link: <http://bit.ly/feynman-ch>) for following broken link]

<http://www.youtube.com/watch?v=UCLgRyKvfp0>. The official view now seems that Feynman did catch the real problem: http://en.wikipedia.org/wiki/Richard_Feynman#Challenger_disaster.

The wiki page above states the following (He is Richard Feynman):

--- start extract ---

He concluded that the space shuttle reliability estimate by NASA management was fantastically unrealistic, and he was particularly angered that NASA used these figures to recruit Christa McAuliffe into the Teacher-in-Space program. He warned in his appendix to the commission's report (which was included only after he threatened not to sign the report), "For a successful technology, reality must take precedence over public relations, for nature cannot be fooled." [174]

...

[Wiki Ref:]

174. Richard Feynman. "Appendix F – Personal observations on the reliability of the Shuttle", <https://history.nasa.gov/rogersrep/v2appf.htm>. Kennedy Space Center. Retrieved September 11, 2017.

--- end wiki extract ---

My respect for the great physicist Richard Feynman went up enormously after I recently came to know of the above human goodness side and the sheer *guts* to speak out the truth in the face of powerful opposition side of him.

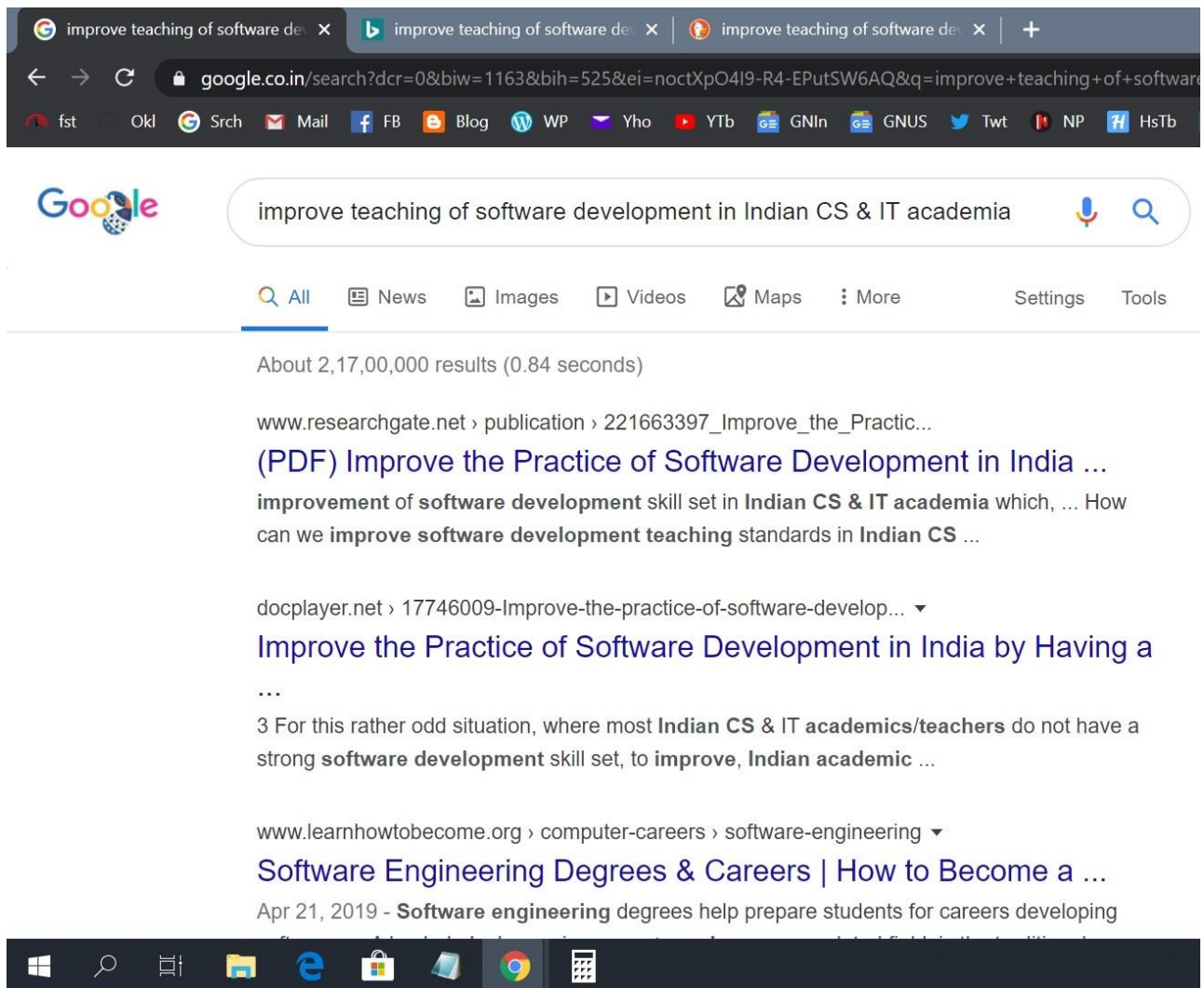
So, I guess, it is always a challenge to be a truth-teller - material truth-teller - and far more challenging perhaps to be a spiritual truth-teller (e.g. http://en.wikipedia.org/wiki/Mansur_Al-Hallaj). The saying goes: Sathyam Bhruyath Priyam Bhruyath Na Bhruyath Sathyam Apriyam. [English translation: Speak the truth; speak the pleasant truth; don't speak the unpleasant truth.]

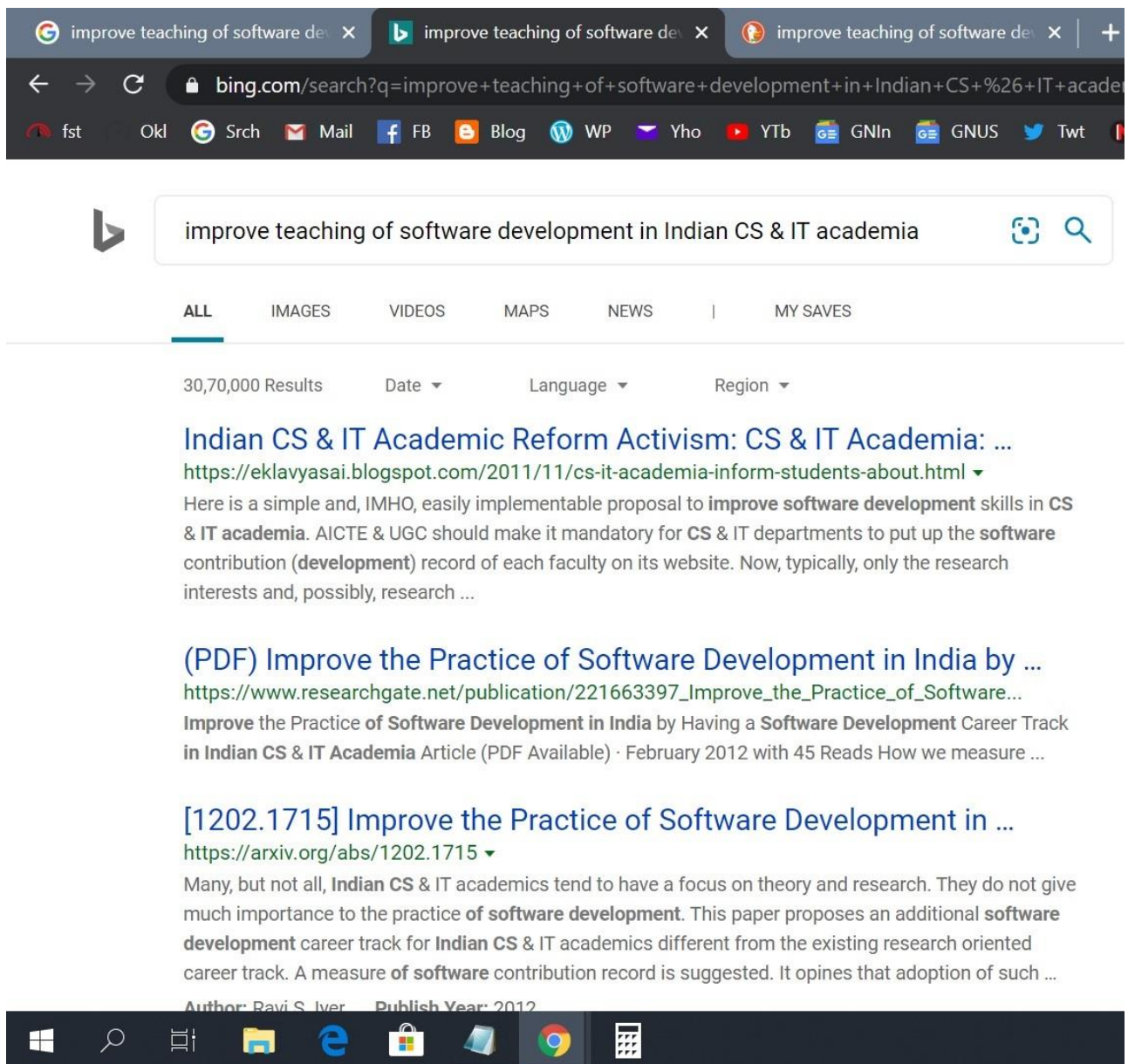
Perhaps the safe path is to just put out one's views on the Internet and provide opinions only if people ask - a low-key activism and not a pushy activism.

Improving the Teaching and Practice of Software Development in Indian CS & IT Academia

My preprint "Paper", Improve the Practice of Software Development in India by ...: Ranked highly by Internet search engines and Google Scholar; Paper text

My preprint paper (not published in peer reviewed academic publication) titled, “Improve the Practice of Software Development in India by Having a Software Development Career Track in Indian CS & IT Academia” which was last updated in December 2012 seems to be ranked highly in Internet Search engines for appropriate terms even in Jan. 2020! Cropped screenshots of some related Google and Bing searches are given below.





The full screenshots and some more information can be seen in my blog post: Quite amazed that Internet search on: improve teaching of software development in Indian CS & IT academia, gives my Dec. 2012 paper as 1st or 2nd result even now in Jan 2020, <https://eklavyasai.blogspot.com/2020/01/quite-amazed-that-internet-search-on.html> [short link: <http://bit.ly/36xcc1r>], 26th Jan. 2020.

The paper itself is available on multiple sites with the main site being arxiv.org. The related links are given below.

Abstract: <http://arxiv.org/abs/1202.1715>

PDF: <http://arxiv.org/pdf/1202.1715>

The paper contents are given later on in this book (taken from above PDF link).

The word skills has become an important keyword in the context of discourse on employability of graduates in India. So I felt it is important to see where my paper stands in search results having the term skills in the search string.

The cropped screenshots below (from incognito Chrome window to avoid bias towards my stuff) show related searches on Google and Bing search engines rank my paper within the top 3 results.

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